~~P.S.I~~

63 Periodicals [British]

UNIVERSITY OF LONDON
LIBRARY

SHL
WITHDRAWN

Digitized by the Internet Archive
in 2026

https://archive.org/details/annual-of-the-british-school-at-athens_1954_49

THE ANNUAL
OF THE
BRITISH SCHOOL AT ATHENS

No. XLIX

1954

THE BRITISH SCHOOL AT ATHENS
50 BEDFORD SQUARE, LONDON, W.C.1
Published by the Managing Committee
PRICE: THREE GUINEAS NET

THE BRITISH SCHOOL AT ATHENS

PATRON
HIS ROYAL HIGHNESS THE DUKE OF EDINBURGH, K.G., K.T.

PRESIDENT
Professor Sir John L. Myres, O.B.E., D.Litt., D.Sc., F.B.A., F.S.A.

MANAGING COMMITTEE 1953–54

Professor R. J. H. Jenkins, M.A., F.S.A., *Chairman.*
Bernard Ashmole, Esq., M.C., M.A., B.Litt., F.B.A. } *Trustees*
T. J. Dunbabin, Esq., D.S.O., M.A., F.S.A.
H.B.M. Ambassador at Athens
Professor R. M. Dawkins, M.A., F.B.A.
Sir John Forsdyke, K.C.B., M.A. } *Vice Presidents*
Professor A. J. Toynbee, M.A., D.Litt., F.B.A., F.S.A.
A. J. B. Wace, Esq., M.A., D.Litt., F.B.A., F.S.A.
Professor Sir John Beazley, M.A., Litt.D., F.B.A. Appointed by the University of Oxford.
Professor D. L. Page, M.A., F.B.A. Appointed by the University of Cambridge.
Professor C. M. Robertson, M.A. Appointed by the University of London.
The Rt. Hon. L. S. Amery, C.H., M.A., D.C.L. Appointed by All Souls College, Oxford.
M. S. Briggs, Esq., F.R.I.B.A. Appointed by the Royal Institute of British Architects.
Miss W. Lamb, M.A., Sc.D., F.S.A. Appointed by the Hellenic Society and British Institute of Archaeology at Ankara.
R. M. Cook, Esq., M.A.
Professor J. M. R. Cormack, M.A.
Professor H. Frankfort, M.A., Ph.D.Leiden, F.S.A.
N. G. L. Hammond, Esq., D.S.O., M.A.
R. J. Hopper, Esq., B.A., Ph.D., F.S.A., Joint Editor of the *Annual.*
Miss L. H. Jeffery, M.A., D.Phil.
E. V. C. Plumptre, Esq., M.A.
Professor D. Talbot Rice, M.B.E., M.A., B.Sc., D.Litt., F.S.A.
Professor J. M. C. Toynbee, M.A., F.B.A., F.S.A.

Secretary, Miss Edith Clay, 50 Bedford Square, W.C.1.
Hon. Treasurer, V. W. Yorke, Esq., M.A., 9–13 George Street, Manchester Square, W.1.
Treasurer, H. E. Kneen, Esq.

DIRECTOR
J. M. Cook, Esq., M.A., F.S.A.

BIBL. SHL
WITHDRAWN

TABLE OF CONTENTS

PAGE

1. M. N. Tod. Letter-Labels in Greek Inscriptions 1
2. J. M. R. Cormack. Epigraphic Evidence for the Water-Supply of Aphrodisias . . 9
3. I. W. Macpherson. Inscriptions from Eskişehir and District (*Plates* 1–2) . . . 11
4. D. M. Lewis. Notes on Attic Inscriptions (*Plate* 3) 17
5. A. J. Gossage. The Date of *IG* V (2) 516 (SIG^3 800) 51
6. G. Morgan. A Greek *Gunner's Manual* 57
7. J. K. Anderson. A Topographical and Historical Study of Achaea 72
8. N. G. L. Hammond. The Heraeum at Perachora and Corinthian Encroachment . . 93
9. N. G. L. Hammond. The Main Road from Boeotia to the Peloponnese through the Northern Megarid (*Plates* 4–5) 103
10. J. K. Anderson (with M. S. F. Hood and J. Boardman). Excavation on the Kofinà Ridge, Chios (*Plates* 6–15) 123
11. J. Boardman. Painted Votive Plaques and an Early Inscription from Aegina (*Plate* 16) . 183
12. A. T. Hodge. A Roof at Delphi (*Plates* 17–18) 202
13. R. W. Hutchinson and J. Boardman. The Khaniale Tekke Tombs (*Plates* 19–30) . 215
14. Mycenae 1939–1953 (*Plates* 31–49)
    - Part I. Preliminary Report on the Excavations of 1953 231
      By A. J. B. Wace.
    - Part II. The Grave Circle 244
      By A. J. B. Wace and F. H. Stubbings.
    - Part III. A Possible Middle Helladic Fortification Wall 248
      By K. R. Rowe.
    - Part IV. The ‘ Gallery ’ in the North Wall 254
      By K. R. Rowe and A. J. B. Wace.
    - Part V. Four Tombs 258
      By V. R. d'A. Desborough.
    - Part VI. The Cyclopean Terrace Building and the Deposit of Pottery beneath It . 267
      By Elizabeth B. Wace.
    - Part VII. A Bronze Founder's Hoard 292
      By F. H. Stubbings.
    - Part VIII. A Winged-Axe Mould 297
      By F. H. Stubbings.
15. B. B. Shefton. Three Laconian Vase Painters (*Plates* 50–55) 299
16. T. J. Dunbabin. Sir John Myres: 1869–1954. Obituary and Supplementary Bibliography 311

Index 315

FIGURES IN THE TEXT

PAGE

INSCRIPTIONS FROM ESKIŞEHIR AND DISTRICT.

Fig. Inscription 1, mentioning Zeus Euphranor 11

NOTES ON ATTIC INSCRIPTIONS.

Fig. *IG* I² 101 31

THE HERAEUM AT PERACHORA AND CORINTHIAN ENCROACHMENT.

Fig. The Megaris 94

THE MAIN ROAD FROM BOEOTIA TO THE PELOPONNESE.

Fig. 1. North Megaris 106
Fig. 2. Water Spouts of Towers C and F in vertical and horizontal section . . . 109
Fig. 3. Part of the Lake-bed of Megálo Vathikhóri and the Bay of Psátha . . . 119

EXCAVATION ON THE KOFINÀ RIDGE, CHIOS.

Fig. 1. Chios Town to Illustrate the Position of the Ancient City 125
Fig. 2. Enlargement of Region Enclosed in Rectangle in Fig. 1 127
Fig. 3. Detailed Plan of Kofinà 130
Fig. 4. Kofinà: Sections of Trenches "A" and "B" 132
Fig. 5. Archaic Amphorae and Hydriae. Kraters. Large Basins 173
Fig. 6. Small Basins. Stoneware Basins 174
Fig. 7. Lamps 174
Fig. 8. Chian Amphora Necks. Grey Amphorae 175
Fig. 9. Chian Amphora Feet 175
Fig. 10. Foreign Amphorae 176
Fig. 11. Trefoil-mouthed Oinochoe 45 (II) 138
Fig. 12. Cooking-pots 176
Fig. 13. Black-glazed Plates 177
Fig. 14. Relief Vases 177
Fig. 15. Half-glazed plates. Bowls with Inturned Rims. Bowls with Outturned Rim . 178
Fig. 16. Small Bowls 179
Fig. 17. Small Lagynoi and Cruet. Small Bowls with Handle. Fish Plates. White-slipped Cups. Large Lagynoi 180
Fig. 18. Tombs. Objects from 179
Fig. 19. Amphorae 181
Fig. 20. Loom-weight Stamps 181
Fig. 21. Spindle Whorls 181
Fig. 22. Loom-weights 182
Fig. 23. Miscellaneous Small Finds 182

PAGE

PAINTED VOTIVE PLAQUES AND AN EARLY INSCRIPTION FROM AEGINA.

Fig. 1. Fragment from Aegina 183
Fig. 2. Acropolis No. 1 195
FIG. 3. Acropolis No. 8 196
Fig. 4. Acropolis No. 10 197

A ROOF AT DELPHI.

Fig. 1. Section through *Epikranitis* Moulding and Mask Boards 203
Fig. 2. General Arrangement of Crossbeams and Mask Boards 203
Fig. 3. Probable Arrangement of the Ceiling of the Cella 204
Fig. 4. West Pediment. Section through Ridge 205
Fig. 5. Alternative Systems for Ceiling at Angles of Pediment 207
Fig. 6. Section through Roof over Cella 207
Fig. 7. (*a*) Existing Ancient Blocks. (*b*) Restoration of Stonework 208
Fig. 8. Restoration of Ceiling 210
Fig. 9. Restoration of Roof over Cella 213

THE KHANIALE TEKKE TOMBS.

Fig. 1. Plan of Tombs 215
Fig. 2 Gold Band No. 3 217
Fig. 3. Scarab No. 22 218
Fig. 4. Scarab No. 23 218
Fig. 5. House Model No. 1 221
Fig. 6. Lids Nos. 42, 44, 52 223

MYCENAE 1939–1953.

PART I. PRELIMINARY REPORT ON THE EXCAVATIONS OF 1953.

Fig. 1. Mycenae: Area North-West of Acropolis 230
Fig. 2. Mycenae: House of the Oil Merchant, House of Sphinxes, Plans 234
Fig. 3. Mycenae: House of the Oil Merchant, House of Sphinxes, North-South Sections 234
Fig. 4. Mycenae: House of Sphinxes, 'Dominoes' in Ivory 240
Fig. 5. Mycenae: House of Sphinxes, Rectangular Blocks in Ivory 240

PART II. THE GRAVE CIRCLE.

Fig. 6. Mycenae: Grave Circle, Sections 245

PART III. A POSSIBLE MIDDLE HELLADIC FORTIFICATION WALL.

Fig. 7. Mycenae: Middle Helladic (?) Wall, Plan 249
Fig. 8. Mycenae: Middle Helladic (?) Wall from North-West 250

PART IV. THE 'GALLERY' IN THE NORTH WALL.

Fig. 9. Mycenae: 'Gallery', Plan and Sections 255
Fig. 10. Mycenae: 'Gallery' from West 256

PAGE

PART VI. THE CYCLOPEAN TERRACE BUILDING AND THE DEPOSIT OF POTTERY BENEATH IT.

Fig. 11. Mycenae: Cyclopean Terrace Building, Plan 270
Fig. 12. Mycenae: Cyclopean Terrace Building, Sections 271
Fig. 13. Mycenae: Cooking Pot 282

PART VII. A BRONZE FOUNDER'S HOARD.

Fig. 14. Fragment of Sword 292
Fig. 15. Bronze Tweezers, etc. 294
Fig. 16. Hammer-head 295
Fig. 17. Fragment of Bronze Handle 295

PART VIII. A WINGED-AXE MOULD.

Fig. 18. The Mould, with a Reconstruction of a Casting from it 298

THREE LACONIAN VASE-PAINTERS.

Fig. 1. Munich 381 303
Fig. 2. Louvre E 668. Naucratis Painter No. 5 305
Fig. 3. Munich 384. Naucratis Painter No. 14 305

LIST OF PLATES

Inscriptions from Eskişehir and District.

1. (*a*) Inscription 2, mentioning *Hosios kai Dikaios*. (*b*) Inscription 10, from Alpanos.
2. (*a*) Inscription 3, from Eskişehir Museum Depôt. (*b*) Inscription 13, from Bursa Museum. (*c*) Inscription 11, from Alpanos.

Notes on Attic Inscriptions.

3. (*a*) *IG* II^2 217. (*b*) *IG* II^2 261 and 216, frag. a. (*c*) *IG* I^2 80.

The Main Road from Boeotia to the Peloponnese through the Northern Megarid.

4. (*a*) Looking south from the flank of Mt. Cithaeron towards Mt. Karídhi. (*b*) Looking from the road on south side of Mt. Karídhi into the basin of Megálo Vathikhóri. (*c*) Looking from the ridge east of Plátanos to the pass ‘ through Gerania ’. (*d*) Tower E, viewed from the south, and the pass over Mt. Karídhi.
5. (*a*) The road ascending the flank of Mt. Karídhi from Áyios Vasílios. (*b*) Tower F, showing a slit-window and the water-spout. (*c*) Tower C, showing the drafting of the angle-blocks. (*d*) Tower F.

Excavation on the Kofinà Ridge, Chios.

6. Chian and Imported Fine Wares (1–16) and Attic and Ionic Black Figure (57–74).
7. (*a*) Amphorae and Basins. (*b*) Large Basins. (*c*) Kernos Fragments and Miniature Amphorae. (*d*) Amphorae and Kraters.
8. (*a*) Architectural Fragments, etc. (*b*) Relief Pithoi.
9. (*a*)–(*b*) Askos (119). (*c*) and (*e*) Lamps. (*d*) Attic Black Glaze.
10. (*a*) Half-glazed Bowls. (*b*) Krater-shaped Vase and Oinochoe. (*c*) Kantharoi. (*d*) Miniature Hydria and Drinking Cups. (*e*) White-slipped Goblets.
11. (*a*) and (*b*) West Slope Ware. (*c*) Attic and West Slope Ware. (*d*) Large Basins.
12. (*a*) Bowl of Attic Black Glaze (194) and Plate of Grey Ware. (*b*) Bowls of Black Glaze and Grey Ware with Stamped Decoration. (*c*) Column-krater with Stamped and Relief Decoration. (*d*) Large Painted Pots.
13. Terracotta Head of Old Man.
14. (*a*) Objects from Tombs. (*b*) Clay and Glass Perfume Bottles from Tombs 13–15. (*c*) Inscribed Tiles. (*d*) Megarian Bowls.
15. (*a*) and (*c*) Grave 13 (Unopened and Opened). (*b*) and (*d*) Grave 12 (Before and After Removal of Tiles).

Painted Votive Plaques and an Early Inscription from Aegina.

16. Painted Votive Plaques.

A Roof at Delphi.

17. (*a*) West Pediment from the Cella. (*b*) Side Cornice, Looking West.
18. Inner Face of West Pediment.

The Khaniale Tekke Tombs.

19. (*a*) *Dromos.* (*b*) Remains of Chamber and Vault.
20. House Model and Pottery.
21. Pottery.
22. Pottery.
23. Pottery.
24. Pottery.
25. Pottery.
26. Pottery.
27. Jewellery.
28. Jewellery and Dumps and Bars of Precious Metals.
29. Small Objects.
30. Fragments of Bronze Figurines (56, 57, 58 of ' Small Finds '). *Kouskouras* Relief Plaque (' Small Finds ', 76).

Mycenae 1939–1953

PART I. PRELIMINARY REPORT ON THE EXCAVATIONS OF 1953.

31. Houses. (*a*) House of Sphinxes, House of the Oil Merchant, House of Shields.
    House of Sphinxes. (*b*) Piriform Jars L.H. IIIB. (*c*) Mug L.H. IIIB.
32. House of Sphinxes. (*a*) Room 2, Charred Wooden Threshold. (*b*) Room 1, Crude Brick Bench with Clay Roundels and Bars. (*c*) Corridor, North End.
    House of Shields. (*d*) West Room from North.
33. House of Shields. (*a*) Ivory Inlays. (*b*) Ivory Plaque, Lion and Calf, Casket Lid (?). (*c*) Ivory Plaques, Running Lions, Sides of Casket (?).
34. House of Shields. (*a*) Model Shields in Ivory. (*b*) Plaque with Shield, Casket Lid (?). (*c*) Plaque with Shields, Side of Casket (?). (*d*) Ivory Lid with Attached Shields. (*e*) Model Shields in Ivory.
35. House of Shields. (*a*), (*d*) Sherd with Design of Boar's Tusk Helmets, L.H. IIIB. (*b*), (*c*) Head of Warrior Wearing Boar's Tusk Helmet, in Ivory. Front and Profile. (*e*) Ivory Inlays of Heads of Warriors with Boar's Tusk Helmets.
36. House of Shields. (*a*) Faience. (*b*) Stone Bowl (Fragment) with Stone Inlays. (*c*) Stone Vases. (*d*) ' Hoofs ' in Ivory.
37. House of Sphinxes. Domestic Pottery from Room 1. (*a*) Lids. (*b*) Funnels. (*c*) Tripod Cooking Vessel. (*d*) Ladles and Jar.
38. House of Sphinxes. (*a*) Lotus and Spirals, Ivory Plaque. (*b*) Inscribed Clay Seal Impressions from Doorway of Room 1. (*c*) Confronted Sphinxes, Ivory Plaque.
39. House of Sphinxes. (*a*) Argonauts, Ivory Plaque. (*b*) Cockle Shells and ' Hoof ' Ivory. (*c*) Couchant Sphinxes, Ivory Plaques from Sides of Casket (?).
40. House of Shields. (*a*) Model Half Columns, Ivory. (*c*) Model Fluted Columns, Ivory. (*d*) Model Spiral Columns, Ivory; Model Wood Column with Treasury of Atreus Pattern. (*e*) Model Half Columns, Ivory. (*b*) Lion Gate. Relief of Lions with Column.

PART II. THE GRAVE CIRCLE.

41. Pottery, L.H. IIIB from Supporting Wall. (*a*) Fragments of Kylikes, etc. (*b*) Fragments of Deep Bowls, etc. (*c*) Deep Bowl, Kylix, Stirrup Jar (?).

PART III. A POSSIBLE MIDDLE HELLADIC FORTIFICATION WALL.

42. (*a*), (*b*) Middle Helladic Pottery: Minyan, Mattpainted and Transitional Wares.

PART V. FOUR TOMBS.

43. (*a*) View of Geometric Cist Tomb and L.H. IIIC Cist Tomb. (*b*) Protogeometric Tomb with Objects *in situ.* (*c*) Vases from Protogeometric Tomb. (*d*) Vases from L.H. IIIC Tomb.
44. Vases from Geometric Cist Tomb. (336 from Inside; Rest from Outside.)
45. Metal Objects and Vases from Inside Geometric Cist Tomb.
46. 335 from Geometric Pithos Burial. 39–262 from Pithos Burial South of Perseia Fountain House. Remainder from Above Geometric Cist Burial.

PART VI. THE CYCLOPEAN TERRACE BUILDING AND THE DEPOSIT OF POTTERY BENEATH IT.

47. (*a*) North Room from North. (*b*) South Room from South.
48. (*a*) Painted Ware, Unusual Sherds. (*b*) Painted Ware, Flower Patterns. (*c*) Painted Ware, Typical General Sherds. (*d*) Painted Ware, Spirals.
49. (*a*) Painted Ware, Linear Decoration. (*b*) Terracotta Figurines. (*c*) Monochrome Ware and Derivatives. (*d*) Stippled Mug.

Three Laconian Vase Painters.

50. (*a*) and (*b*) New York 50. 11. 7. Arkesilas Painter No. 4.
51. (*a*) New York 50. 11. 7. Arkesilas Painter No. 4. (*b*) Louvre E 663. Arkesilas Painter No. 2. (*c*) Brit. Mus. B 5. Arkesilas Painter No. 7. (*d*) Brit. Mus. B 3. Manner of Arkesilas Painter No. 23.
52. (*a*) Brit. Mus. B 4. Naucratis Painter No. 3. (*b*) Louvre E 672. Naucratis Painter No. 6.
53. (*a*) Louvre E 672. Naucratis Painter No. 6. (*b*) Louvre E 671. Hunt Painter No. 2. (*c*) Brit. Mus. B 4. Naucratis Painter No. 3.
54. (*a*) Louvre E 666. Manner of Arkesilas Painter No. 9. (*b*) Louvre E 670. Hunt Painter No. 4. (*c*) Louvre E 671. Hunt Painter No. 2.
55. (*a*) Florence 3879. Hunt Painter No. 13. (*b*) Louvre E 661. Naucratis Painter No. 7.

LETTER-LABELS IN GREEK INSCRIPTIONS

In a recent volume of this *Annual* (XLV 126 ff.) I discussed the alphabetic numeral system as employed in Attica; in the present article I examine the use of letters in Attica and elsewhere to identify different items, often similar in character and appearance, with a view of facilitating reference and simplifying inventories. For such a purpose letters have certain advantages over other symbols which might be devised; they are brief and familiar and they occur in a recognized order. They thus approach nearly to the use of ordinal numbers (contrasting sharply with acrophonic numerals, which are invariably used to represent cardinal numbers), though it cannot be said that they constitute a numeral system, any more than we could claim that we in English use an alphabetic numeral system because, e.g., *a*, *b*, *c*, *d* are used on p. 4 below to distinguish four items which might equally well have been numbered 1, 2, 3 and 4. The letters here under consideration were not, and could not be, made the instruments of arithmetical calculation, and the highest number expressed in this way in any inscription known to me is 106 (*Inscr. Délos* 1432 *Aa* ii 21; see below, p. 8).

Various scholars have dealt briefly with the subject,[1] but the accumulation of a mass of new evidence calls for a fresh treatment, especially of the part played by such letters in inventories. No technical name has, I believe, been given to letters so used, and in this article I call them 'letter-labels', a title which emphasizes the function they fulfil in the majority of cases where they occur.

I. General

The earliest example seems to be the use of the first nine letters of the local alphabet (A to ⊕, including F) to mark the nine clauses of a statute passed by the Eastern Locrians to define the conditions on which certain of their number were to go as colonists to Naupactus in Western Locris about 460 B.C.[2] It has further been claimed that three fifth-century boundary-stones from Athens inscribed hόρος K (*IG* I^2 876) are examples of this usage; but, apart from the isolated nature of the evidence, this view raises the problem of three stones all bearing the same number, whereas no member of the series bearing any other number has survived. I cannot but wonder whether K is an abbreviation and these stones stand in some relation to the two which are inscribed hόρος κρένες (*IG* I^2 874/5).[3]

Of the eighty-nine bronze jurors' tickets collected in *IG* II^2 1835–1923, dating from the fourth century B.C., sixty-three bear one of the ten letters A to K, indicating the panel on which the holder served.[4] With these we may compare the eighty-six earthenware tallies, dating from the third century, found in or near the Theatre at Mantinea (*IG* V (2) 323, nos. 22–107), each of which bears, or at least bore, on the obverse the name and patronymic of the holder and on the reverse one of the twenty-five letters A to Ω (including *digamma*), indicating, it would seem, the section of the theatre-*cavea* in which the owner was entitled to sit.[5]

A different usage is found in a stele from the Epidaurian Asclepieum (*IG* IV^2 109), dating from the early third century B.C. and bearing on obverse and reverse and on the two sides long and detailed building-accounts. At the foot of the right side is a large A and the phrase τὰ λοιπὰ ἐν τῶι ἄλλωι | κροτάφωι ⟨ὧι⟩ ἐπιγέγραπται βῆτα, 'continued in column B' (iii 161 f.), while the text on the left side ends with a reference to [τοῖς ἄ]λλοι[ς] ἃ ἐν τῶι κροτάφωι | ἐν ὧι τὸ γρ⟨ά⟩μμ' A γέγραπται (iv 129 f.), but there is no trace of the expected B.[6]

---

[1] See J. Franz, *Elementa* 348 f., S. Reinach, *Traité d'épigraphie grecque* 220 f., 472, J. Woisin, *De Graecorum notis numeralibus* 28 ff., Meisterhans–Schwyzer, *Grammatik der attischen Inschriften* 10, W. Larfeld, *Handbuch* II 546 f., *Griechische Epigraphik* ^{3} 297 f.

[2] *IG* IX (1) 334, *SIG* 47, *GHI* 24.

[3] Tod, *BSA* XLV 137 f.

[4] Seven of these are re-edited in L. Robert, *La Collection Froehner* I 10 a, b, d, f, h, i, k. Of the five examples which bear the letter *eta* four have the form Ͱ. Add F. Stähelin, *AA* 1943, 16 ff., I. A. Meletopoulos, Πολέμων III 33 ff.

[5] See the commentary of Hiller von Gaertringen *ad loc.*; to the bibliography add Schwyzer *DGE* 663.

Very common is the use of letter-labels in the form of 'masons' marks' inscribed upon blocks of stone to indicate the position which each is to occupy in the construction in which it takes its place. Here I give only three examples, to which attention has recently been drawn. On the upper surface of the stones forming the front row of the Piraeus theatre are inscribed the letters A to Ω and AA to ΓΓ, each of which occurs twice, once on each of two contiguous blocks.[7] The examination of the 'House of the Hermes' at Delos has revealed a similar series of *marques d'assemblage*, running from AA to HH (excluding FF).[8] Again, the position of each of the nine inscribed bases composing the monument in honour of the Muses, erected by the Thespians in the Vale of the Muses on Mount Helicon, was indicated by the letters A to I, of which seven survive.[9]

Another well-known use of these letter-labels (approximating to numerals, yet using the letters, except A to E, with values different from those of the alphabetic numeral system recognized throughout the Greek world) is to distinguish the several books comprised in certain literary works, notably the Iliad. This also may be illustrated from inscriptions, such as the *tabulae Iliacae* found in Rome (*IG* XIV 1284–6).[10]

But my main purpose in this article is to examine the use of letter-labels in the temple-inventories of Athens and Delos, and to these I now turn.

II. Athens

The adoption and widespread application of the system of letter-labels to facilitate the task of officials responsible for drawing up or checking inventories seems to be due to Athenian initiative and influence. A decree[11] of 434 B.C., moved by Callias, contains a clause instructing the newly created ταμίαι τῶν ἄλλων θεῶν to inscribe on a single stele ἅπαντα καθ' ἕκαστόν τε | τõν θεõν τὰ χρέματα hοπόσα ἐστὶν ἑκάστοι καὶ συμπάντον κεφάλαιο|ν, χωρὶς τό τε ἀργύριον καὶ τὸ χρυσίον (ll. 22–24), and in future to inscribe annually on a stele an audited account τõν τε ὄντον χρεμάτον | καὶ τõν προσιόντον τοῖς θεοῖς . . . ., τὰς δὲ στέλας, ἐν αἷς ἂν ἀναγράφσοσι τὰ χρέματα τὰ hιερ||[ά, θέ]ντον ἐμ πόλει hοι ταμίαι (ll. 24–6, 29–30), and one of these statements survives in *IG* I^2 310.[12] A second decree,[13] proposed by Callias on the same day, ordered the ταμίαι of Athena to make a careful register of the property of the goddess, [hοπόσα δὲ τõ]ν χρεμάτον τõν [hιερõ]ν ἄστατά ἐστιν ἒ ἀν[αρίθμετα h]οι ταμίαι] h[ο]ι νῦν . . . . . hοπόσα μὲγ χρυ[σᾶ ἐστιν αὐ|τõν ἒ ἀργυρᾶ] ἒ ὑπάργυρα στε[σάντον, τὰ δ]ὲ ἄλλ[α ἀριθμεσάντον κτλ. (ll. 26–29), and we have a long series of annual inventories, beginning in 434 B.C., of the goddess' belongings stored on the Acropolis (*IG* I^2 232–290, 292*b*, II^2 1382–3).[14] Considerable fragments also survive of the *traditiones* published in the last quarter of the fifth century by the ἐπιστάται of the Eleusinian sanctuary (*IG* I^2 311–322; cf. *SEG* X 211–4), and one of an inventory of the property of Artemis Brauronia (*SEG* X 219). Inventorizing was very much the vogue in Attica, and we are not surprised to find that the Attic settlers who, at the outbreak of the Peloponnesian War, occupied the island of Aegina, promptly made and published inventories of some at least of the local shrines (*IG* IV 39, 1588). Similarly in the fourth century the cleruchs planted on the island of Imbros appoint πράκτορες to publish a list of the contents of a temple with their weights, and order their successors to add to it all later acquisitions (*IG* XII (8) 51), and the Attic cleruchs sent to Samos drew up in 346/5 an inventory of the temple of Hera, including the κόσμος τῆς θεοῦ (Michel 832). A further sign of the Athenian love of inventories is found in a decree of 353/2 B.C. (*IG* II^2 120), giving detailed instructions for the examination and registration of all the sacred objects in the Chalkotheke (ἐξετάζεν κατὰ ἔθνος ἕκαστα καὶ ἐπιγράφεν τ|[ὸν] ἀριθμόν, ll. 14 f.), followed on the same stele (ll. 32 ff.) by the inventory itself.[15]

---

[6] Similarly a large B stands at the foot of the right-hand side of another building inscription (103*C* 329).

[7] See, most recently, O. A. W. Dilke, *BSA* XLV 24.

[8] J. Delorme, *BCH* LXXVII 478 f.

[9] W. Peek, Γέρας 'Α. Κεραμοπούλλου 611.

[10] In 1286 we have the letter-names εἶ, ȝῆτα and ἦτα, and in 1291 κάππα. In the famous list of dedications to Athena Lindia (*Lindos* II 2) the phrase ἐν τᾶι A̅, etc., occurs almost sixty times in book-references, but as the highest number is Δ̅ (for Λ̅, found six times, is an imperfectly engraved or preserved A̅, and I̅ in C95 probably stands for Γ̅), we cannot say whether the letters are 'labels' or true numerals, *i.e.* whether Book X of the Iliad would have been called K or I. In C37 τξ stands for 360.

[11] *IG* I^2 91; cf. *SEG* X 45, *ATL* II 46 D 1.

[12] Cf. *SEG* X 225.

[13] *IG* I^2 92; cf. *SEG* X 45, *ATL* II 47 D 2.

[14] Cf. *SEG* X 184–209.

In view of this insistence on the maintenance of full and precise records, it is astonishing to find how ineffective were the steps taken for the custody and preservation of the sacred objects. In the inventory just mentioned a surprising number of them were damaged or imperfect—κοῖται ἐπισκευῆς δεόμεναι, πίνακες κατεαγότες, ἐσχάραι χαλκαῖ οὐχ ὑγιε͂ς, ἵππος χαλκо͂ς οὐρὰν οὐκ [ἔχων], and so on. This deplorable condition of many votive offerings is amply illustrated by the fourth-century lists from Eleusis, from which I quote the items (under the heading χαλκώματα) ποτήριον ἄνευ ὠτός· κοτύλη ἐρρωγῦα· κάδοι ||[|]|· τούτων εἷς ὅλος στέγων, ὁ δ' ἕτερος πυθμένα οὐκ ἔχει, ὁ τ[ρ]ίτος οὔτε ἄρτημα οὔτε πόδε δύο, ὁ δὲ τέταρτος τὸν πυθμένα ὑπέρ(ρ)απται (*IG* II^2 1542.17 ff.), by many of the Delian inventories and by that of the Samian Heraion (see above). Thus mutilated and useless objects continued to be hoarded and catalogued year after year, and it was only rarely that the authorities ventured on a bold and comprehensive measure of repairing damaged votives and recasting in other forms those incapable of repair.[16] Such a policy was carried out about the middle of the third century B.C. at the Oropian Amphiaraion (*IG* VII 303), and we possess part of the report for 215/4 B.C. τῶν αἱρεθέντων ὑπὸ τοῦ δήμου ἐπὶ τὴν καθαίρεσιν καὶ τὴν ἐπισκευὴν τῶν ἐν τῶι 'Ασκληπιείωι at Athens (*IG* II^2 1539), and records of similar action taken in the temple of the ἥρως ἰατρός in the third and second centuries (*IG* II^2 839, 840; *cf.* 841, 842).

Most of the fifth-century inventories [17] are comparatively short and simple, but the fourth century brought an embarrassing increase in their number, length and complexity, and the annual renewal of the whole record gave place in some cases to the publication of an annual list of accessions.[18] It was in these circumstances that the use of letter-labels to facilitate the registration of votive offerings arose. Very early in the fourth century we find some objects identified by a reference to their decoration; thus in several fragments of the inventory of the Opisthodomos, published by the Treasurers of Athena and the Other Gods, we find such phrases as κανо͂ν χρυσо͂ν ὑπόξυλον ἵνα τὰ ἐλεφάντινα ζῶια (ζώιδια), κανо͂ν χρυσо͂ν ὑπόχαλκον ἵνα ὁ 'Απόλλων (or ὁ Ζεύς), θυμιατήριον χρυσо͂ν ὑπόχαλκον ἵνα τὰ καμπύλα πέταλα (or τὰ ὀρθὰ πέταλα).[19] But I know no example of the use of a letter for this purpose earlier than 371/0 B.C., when we find two θυμιατήρια ἐπίχρυσα ὑπόχαλκα, differentiated by the Treasurers of Athena as ἵνα τὸ ἄλφα παρασεσήμανται and ἵνα τὸ βῆτα παρασεσήμανται; these phrases recur in 368/7 but are soon abbreviated to ἵνα τὸ ἄλφα, ἵνα τὸ βῆτα.[20] Not until 343/2 have we evidence for a wider application of this device; in *IG* II² 1443.12 ff. we have a certificate of the receipt of twenty-eight ῥυμοί of uncoined silver reserved for military expenditure;[21] each ῥυμός contains five bars (φθοῖδες) of metal, and the exact weight of each bar is recorded. The bars are simply described as πρῶτος, δεύτερος, τρίτος, τέταρτος, πέμπτος, but each ῥυμός has, in addition to its ordinal, a letter-label, *e.g.* πρῶτος ῥυμός, ἵνα τὸ: Α: πρῶτ[ος] φθοῖς: ΧΗΗ⊢⊢⊢: δεύτερος: ΧΗΗΙΙΙ: and so on. The letter-labels run consecutively from Α to Χ, but Χ is followed by a new series (ll. 72 ff.) beginning ἐξ ἀρχῆς ἕτερον: πρῶτος | [ῥυ]μός, ἵνα τὸ: ΑΑ: πρῶτος φθοῖς κτλ. How many ῥυμοί this series comprised we do not know, for the text is lost after ἵνα [τὸ: ΖΖ:

---

[15] See also *IG* II^2 216, 217 (345 B.C.). For the date of II^2 120 *cf.* E. Schweigert, *Hesperia* VII 288.

[16] A. M. Woodward has recently discussed the terms ἀπόκαυσις and ἀφέψησις relating to the melting down of golden objects in the time of Lycurgus (*Num Chron* 1951, 109 ff.). The Delian inventory for 179 B.C. refers to the ψήγματα and other objects handed over τοῖς ἀνδράσιν τοῖς αἱρεθεῖσιν ὑπὸ τοῦ δήμου κατὰ τὸ ψήφισμα ὥστε συγχωνεῦσαι ἐν τεῖ ἐκκλησίαι ἃ παρέλαβον χύματα χρυσᾶ . . . . ἀργυρᾶ (*Inscr. Délos*, 442*B* 118 ff.; *cf.* 25 f.).

[17] For Attic inventories see W. Larfeld, *Handbuch* II 870 ff.

[18] Cf *IG* II^2 1533, Michel 836–8.

[19] *IG* II^2 1378.13 f., 1392.16 ff., 1396.2 ff., 1397–99, 1407.21.

No examples occur in the reports of the ταμίαι τῶν ἄλλων θεῶν (*IG* II² 1445–54) issued separately between 375/4 and 342/1, but in those published jointly by the ταμίαι τῆς θεοῦ καὶ τῶν ἄλλων θεῶν from 341/0 onwards the use of letter-labels is frequent, beginning in 320/19 B.C., when we have a series of ὑδρίαι marked ἐφ' εἶ (or ἧι) τὸ Α down to τὸ Θ, at which point the extant text ends (1469.7 ff.), and in 319/8 a similar list of φιάλαι marked ἐφ' εἶ τὸ Ι down to τὸ Γ, where the list ends (1471.1 ff.),[22] while in 315/4 or a little later there is a series of στέφανοι ἐφ' ὧι τὸ Α down to τὸ Κ, where the extant text, but not the original list, ends (1476.17 ff.).[23] In 1492.22 ff. we find a list of five silver ὑδρίαι and their several weights; all five have their inscriptions recorded (ἐφ' ἧι ἐπιγέγραπται· ἱερὰ Ἀσκληπιοῦ, Νικοκράτης ἐκ Κολωνοῦ ἐποίησεν), and the last three have also their letter-labels (ἐφ' ἧι τὸ: Γ, τὸ: Δ, τὸ Ε) (ll. 27 ff.; *cf.* 58). A different system is illustrated in an inscription (*IG* II² 1496) of the Treasurers of Athena and the Commissioners appointed to carry out Lycurgus' measures ἐπὶ τὰς νίκας καὶ τὰ πομπεῖα καὶ τὸν κόσμον τὸν κανηφορικόν.[24] This covers the years 334/3 to 331/0 and preserves, *inter alia*, a record of forty crowns divided into four ῥυμοί, each of which contained ten crowns and bore the labels ΒΙ, ΒΙΙ, ΒΙΙΙ, ΒΙΙΙΙ respectively (ll. 176–186)[25]; next come ἕτεροι οἱ τὸ γάμμα ἔχ[οντες]| ΔΔΔ, divided into three groups marked respectively ΓΙ, ΓΙΙ, ΓΙΙΙ (ll. 187 ff.), and there was also, we may assume, a record (now lost) of thirty[26] crowns, divided into three ῥυμοί labelled ΑΙ, ΑΙΙ, ΑΙΙΙ. In another fragment of the same inscription, apparently added later in a different hand, we have a mutilated record containing letter-labels which have been restored [ἐ]φ' ἧι τὸ ἄλφα κα[ὶ τὸ βῆτα παρασεσήμανται], [ἐφ' ἧι τὸ ἄλφα καὶ τὸ γάμ]μα παρασεσήμα[νται], [ἐφ' ἧι τὸ ἄλφα καὶ τὸ δέλ]τα παρασεσήμα[νται], [ἐφ' ἧι τὸ ἄλφα καὶ τὸ] εἶ: παρασεσή[μανται] (ll. 217 ff.), but the reason for this variation is not apparent.[27]

I cannot find any trace of letter-labels among the records of the curators of the sanctuary of Artemis Brauronia, the Asclepieum and the Eleusinian temple, or among those of the Delian amphictyons.[28]

Summarizing the use of letter-labels in fourth-century Athens we may note:—

(*a*) That letter-labels are expressed by simple letters (Α, etc.), not by letter-names (ἄλφα etc.), except in the three earliest examples (1421, 1425, 1429) and in the unique passages 1496.176 ff., 217 ff.

---

[20] *IG* II² 1421.50 f., 55 f., 1425.94 f., 97 f., 1429.28, 31.

[21] L. 12 [ἀσή]μου ἀργυρίου τοῦ εἰς τὰ στρατιωτικὰ ἐξαιρεθέντ|[ος].

[22] *Cf.* 1472.43, 45, 1475.9 ff., 1480.7 ff.

[23] *Cf.* 1477.24 ff., 1485.8 ff., 1486.5 ff., 1491.13, 15.

[24] *IG* II² 333, 1493.5; *cf.* Plut. *Vit. X or.* 852B.

[25] The best preserved item runs [τέ]ταρτος ῥυμὸς δέκα, ο[ἷς βῆτα]|| καὶ τέτταρα ἰῶτα πα[ρασεσήμανται], | σταθμὸν: ΗΗΗΗ (ll. 184–6).

[26] If we may connect this list with Plutarch's statement (*Vit. X or.* 852B) that Lycurgus παρεσκεύασε . . . . κόσμον χρυσοῦν εἰς ἑκατὸν κανηφόρους.

[27] A further opisthographic fragment of II² 1496 was found in the Agora in 1938 and published by E. Schweigert in *Hesperia* IX 328 ff., no. 37. The text on the reverse is very mutilated and satisfactory restoration is impossible. The words ἐπιγέγραπται σταθμὸν can be restored with tolerable certainty in ll. 2, 4, 6, 8, 10, and στέφανος ἐφ' ὧι in ll. 3, 5, 7, 9; ὧι is followed in l. 5 by [τὸ] ΛΦ, in l. 7 by τὸ and in l. 9 by τὸ Λ.

[28] *IG* II² 1633–53; *cf.* J. Coupry, *BCH* LXII 236 ff.

(*b*) That the letter-label is always preceded by τό, even where it consists of two letters (*e.g.* 1443.73 ἵνα τὸ: AA:), except in the passage 1496.176–85, 190–3 and in the phrases [τ]ὰ δύο: YY (1485.4; *cf.* 1486.2) and τὰ δύο AA (1491.13).

(*c*) That this τό (or τά) is preceded in the earliest examples, from 371/0 to 343/2 B.C., by ἵνα, which is later (the first recorded case is 1469 of 320/19 B.C.) superseded by ἐφ' ὧι (εἷ, ἧι, αἷς); ἐφ' οὗ occurs only once (1486.2), ἐφ' ἧς never. This usage contrasts sharply with that found in the Delian records of the second Athenian domination (below, p. 8).

(*d*) That in the two earliest examples (1421, 1425) the letter-label is immediately followed by παρασεσήμανται, which is understood in all later examples, but expressed only in the wholly exceptional formulae of 1496.176 ff., 217 ff.

Two further Athenian inscriptions call for notice. (*a*) A fragment included by Kirchner among the *fragmenta incerta* and assigned to the third century B.C. (*IG* II^2 1695) contains examples of a new and very brief formula—οἰνοχοίη: A:, ἕτεραι: II: B:, ψυκτὴρ: A:, ψυκτὴρ: B:, ψυκτήρ (with no added letter), δῖνος: A:, δῖνος: B:, κτλ., followed in every case by a note of the weight. (*b*) In *Hesperia* III 51–3, no. 39 B. D. Meritt published three fragments, unearthed in the Agora, of an inventory which P. Roussel identified [29] as relating to the Delian sanctuaries and dated *c.* 166 B.C., pointing out the striking similarities between portions of the Agora text and *Inscr. Délos* 1432, which belongs to the archonship of Phaedrias (153/2 B.C.). Subsequently a fourth fragment came to light and all four were published in *Hesperia*, XIII 254–7, no. 11 by Meritt, who accepted Roussel's date,[30] though he called attention to some noteworthy parallels in *Inscr. Délos* 380, 385 and 442, which belong respectively to 198?, 196 and 179 B.C. Any date earlier than 166 must be rejected, for the Athenians would not exhibit in their city the records of an independent Delos, and even if we accept a date in or soon after 166, we may well be surprised, since no other fragment has yet come to light of Athenian copies of the documents represented by *Inscr. Délos* 1400–1479. It is possible that at the outset the Athenians decided to set up copies at Athens, but soon abandoned the plan in view of the unnecessary expense entailed. In this document letter-labels are used, as is shown by ἧι τὸ γάμμ[α (l. 32), ἐφ' οὗ τ̣[ὸ (l. 37), ἐφ' ἧς (ll. 44, 45), τὰ δύο νῦ (l. 46), ἐφ' ἧς τὰ δύο ῥ[ῶ (l. 48), and τὰ δ]ύο φεῖ (l. 50). We may note that in the extant Delian records of this period letter-labels are not written out as letter-names (below, p. 8).

Before passing from Attica to Delos, we may note the use of letter-labels in the inventory of the Heraion published in 346/5 B.C. by the Athenian settlers on the island of Samos; objects are there recorded as missing ἐκ τοῦ γάμμα and ἐν τῶι εἶ (Michel 832.45 f.).

III. DELOS

I have already remarked (p. 4) that I have found no examples of the use of letter-labels among the fourth-century *tabulae Amphictyonum Deliacorum* found at Athens (*IG* II^2 1633–53), and the same is true of the parallel series found at Delos, so far as I have examined them.[31]

I now turn to the accounts and inventories published annually by the Delian ἱεροποιοί [32] during the period of the island's independence (314–166 B.C.) and relating to all the sanctuaries under their charge. The documents are numerous and detailed, numbering, as edited in the *corpus* of Delian inscriptions,[33] 384, of which a considerable group run to inordinate length, especially 161 (519 lines), 199, 203, 287, 290, 298, 372, 442 (617 lines) and 461. It is surprising that the Delians should have maintained this publication on stone throughout the period, for the trouble and expense [34] involved were considerable and the problem of the exhibition of a large and steadily growing number of inscribed stelae must have become serious, if not acute. But the incentive to continue the custom, rather than to rest content with a paper document duly audited and deposited in the public archives, may have come from the *hieropoioi* themselves, who welcomed the publicity so secured for their names, their activities and their zeal.

---

[29] *BCH* LVIII 96 ff.

[30] In his first publication Meritt commented that 'the writing indicates a date in the first half of the second century B.C.' (*Hesperia* III 53). I am not sure that κ]α̣ὶ ἑπτὰ is rightly restored in l. 16. The φιάλαι χρυσαῖ λεῖαι ἑπτά of *IG* XI 161*B* 27 ff., *Inscr. Délos* 296*B* 33 ff., 298*A* 136 ff., 442*B* 78 ff., 1430*b* 7 ff., 1443*A* i 105 ff., 1450*A* 74 ff. suggest that the αι may belong to φιάλ]αι or χρυσ]αῖ or λεῖ]αι, though in the Agora text the weights of the several φιάλαι are not separately recorded.

[31] These will shortly be published in the *Inscriptions de Délos* by J. Coupry (*Actes du deuxième Congrès International d'Épigraphie* 253).

[32] The records of the Delian archons (*IG* XI 105–134), extending from 284 to a little later than 170 B.C., though they include a considerable element of inventory, contain no examples of letter-labels. For the administration of the *hieropoioi* see the bibliography in *IG* XI (2), p. 18, and add W. A. Laidlaw, *History of Delos* 147, 152 ff.

On the subject of letter-labels, however, these records have little to tell us, and that little concerns solely a series of twenty-one golden crowns,[35] one representing myrtle leaves and the rest laurel, which make their appearance in 296 B.C. in the words στεφάνους χρυσοῦς ἠρτημένους πρὸς τῶι τοίχωι εἴκοσι ἕνα, with no added particulars of form or weight (*IG* XI 154*A* 62). In 279 B.C. the phrase τῶγ κρεμαμένων στεφάνω[ν] is followed by a record (161*B* 107 ff.) [36] of the weight of each (ὁ πρῶτος ὁλκὴν δραχμὰς HCT, etc.), accompanied in eight cases by a note of the discrepancy between the previously recorded and the actual weight—*e.g.* ὁ ἔνατος καὶ δέκατος εἶχε μὲν ἐπιγραφήν· 𐅄ΔΔΔ⊢⊢ΙΙ· σταθεὶς [δ'] εἵλκεν 𐅄ΔΔΔ⊢⊢ΙΙΙ· ὁ εἰκοστὸς ἐπεγέγραπτο μὲν ὁλκήν· Η· σταθεὶς δ' εἵλκυσεν· Η⊢ΙΙΙ (ll. 113 f.). In 187 we have a very fragmentary list, in 199*B* 28 ff. a complete list with weights, differing slightly in most cases from those entered in 161*B*. In 269 B.C. we have a perfectly preserved record (203*B* 58 ff.) of the στέφανοι χρυσοῖ πρὸς τῶι τοίχωι εἴκοσι εἷς, with revised weights and a note in each case of the form,[37] ὁ πρῶτος μυρσίνης, ὁ δεύτερος δάφνης, and so on, though this involves a twentyfold repetition of δάφνης. Not until about 267 B.C. do we learn of the presence of letter-labels, indicated by such phrases as οὗ τὸ βῆτα following the word δάφνης and preceding ὁλκή (205*Ab* 20 ff.); the extant letter-names are βῆτα, ἦτα, μῶ, ξεῖ, πεῖ, after which come οὗ τὸ Σ and οὗ τὸ Υ. The list in 219*B* 58 ff. (before 260 B.C.?) gives only the weights of the στεφάνους χρυσοῦς πρὸς τῶι τοίχωι ΔΔΙ. In 283.6 ff. the first crown alone has its letter-label recorded (οὗ τὸ ἄλφα), and the same is true for 250 B.C. (287*B* 77 ff.) [38]; the rest are identified only by ordinal numbers. By 240 B.C. consideration of cost and labour have reduced the entry to the phrase ἐν τῶι να[ῶι εἴσω· στεφάνους χρυσοῦς πρὸς τῶι τοίχωι ΔΔΙ] (298*A* 116), which in 235 or 234 B.C. is further shortened to [ἐν τῶι νεῶι εἴσω στέφανοι] εἴκοσι εἷς (313*a* 92), and in 229 B.C. to -π]ρὸς τῶι τοίχωι στέφανοι χρυ[σοῖ] ΔΔΙ (320*B* 3). This is the last surviving mention of these crowns; what happened to them thereafter we cannot say. Thus while 205*Ab* 20 ff., 283.6 and 287*B* 77 prove that the crowns had their several letter-labels during this period, there seems to be a certain reluctance on the part of the *hieropoioi* to use them, and no attempt was made to extend the device to other groups of sacred objects; where used, the letters are indicated by words—ἄλφα, βῆτα, etc.—except in the case of Σ and possibly also of Υ (205*Ab* 28 f.).

Three further points may be noted before we turn to the later lists.

---

[33] *IG* XI 135–289, *Inscr. Délos* 290–498 (*ed.* F. Durrbach). Since the texts in these two works run consecutively, I cite them by number only.

[34] The cost is recorded in 161*A* 117 ff. (279 B.C.) and 199*C* 66 ff. (274 B.C.); in the earlier case the stele cost 25 dr., transport 1½ dr., engraving 100 dr., lead 5 dr., wood 1 dr., erection 2½ dr., total 135 dr.; in the latter the stele cost 24 dr., but the charge for engraving rose to 126⅔ dr., the number of letters being roughly calculated as 38,000. The engraver receives a drachma per 300 letters.

[35] See *IG* XI (2), p. 37, note on 154*A* 61 ff., and *BCH* XV 155 f., XLV 179 ff.

[36] Very similar is 164*A* 40 ff. (276 B.C.).

[37] So also in 205*Ab* 20 ff., 230*B*, 250, 283.6 ff., 287*B* 77 ff.

[38] In 284.9 εἴκοσι ἕνα should be restored in place of εἴκοσι εἷς (*cf.* 154*A* 62, 199*B* 29). In 287*B* 77 the heading runs οὗτοι (where we should expect οἵδε) ἐν τῶι τοῦ Ἀπόλλωνος πρὸς τῶι τοίχοι (*sic*) εἴσω· στέφανοι χρυσοῖ ΔΔΙ.

(*a*) Occasional attempts, other than those already mentioned, to secure greater brevity deserve attention. Thus in 136.6 (before 301 B.C.) the word δραχμαί is omitted in the phrase τριακόσιαι ἐνενήκοντα μία πέντ' ὀβολοί, and in 154*B* (296 B.C.) numbers are written in words, but δραχμαί is regularly omitted, while in l. 44 ὀβολοί also is omitted in the phrase ὁλκὴ ἑκατὸν τετταράκ[ον]τα ὀκτὼ τέτταρες. Again, in 199*B* 28 ff. there is a series of ordinals running normally from τοῦ πρώτου to τοῦ δωδεκάτου, but the 'teens' are represented by τοῦ τρίτου, τοῦ τετάρτου, etc., the words καὶ δεκάτου being intentionally omitted, as is also done in 219*B* 60 f.

(*b*) Examples of grammatical inconsistency are very frequent, especially in the inventories, where the objects recorded are sometimes in the nominative, the natural case to express such lists, sometimes in the accusative, since many of them are introduced by such phrases as τάδε παρελάβομεν. The nominative and the accusative are often used indiscriminately for items of the same nature occurring in the same list; thus in 199*B* 2 ff. we find ἄλλην (*sc.* φιάλην) thrice, followed by ἄλλη at least four times, in 442*A* 10 f. ἄλλον στάμνον is followed by ἄλλος στάμνος, and in 442*B* 7 ff. στέφανος χρυσοῦς occurs five times in succession followed by στέφανον χρυσοῦν twice.

(*c*) A curious feature of these records is the neglect of the talent as a unit of money and its use only for denoting weight. This refusal to recognize any monetary unit larger than the drachma leads to the appearance of very high numbers[39]—*e.g.* δραχμαὶ 𐅇MMMXXX etc. (163*Bdg* 10), 𐅇MMMM𐅆XXX etc. (442*A* 122), the irregularly expressed MMMMMMXXX etc. (444*A* 56)—culminating in the μυριάδες ΔΔΔΠ [δ]ραχμα[ί] (= 350,000 dr.) of 465*c* 22 and the ΔΔΔΔ𐅇MH (= 460, 100) of 203*B* 101, though this last number does not refer to drachmas. Often, especially in 442*A*, numbers are preceded by the drachma-sign ⊢, while in the phrase τῶν ἑκατὸν ⊢ this sign follows the number (442*A* 173).

In 166 B.C. Delos came once more under the control of the Athenians, who were faced with the task of making provision for the future discharge of the duties hitherto assigned to the *hieropoioi*. This they did by appointing a commission of Areopagites to draw up a new register of the contents of the Delian sanctuaries,[40] and by the annual election of officials who are rarely (and, it would seem, incorrectly) called ἱεροποιοί,[41] but are usually designated by a phrase descriptive of their functions—οἱ καθεσταμένοι ἐπὶ τὴν φυλακὴν τῶν ἱερῶν χρημάτων καὶ τὰς ἄλλας προσόδους (or καὶ τῶν ἄλλων προσόδων (τῶν) τοῦ θεοῦ),[42] οἱ κεχειροτονημένοι ἐπὶ τὰ ἱερὰ καὶ ἐπὶ τὴν φυλακὴν τῶν ἱερῶν χρημάτων καὶ τὰς ἄλλας προσόδους,[43] or οἱ κεχειροτονημένοι ἄνδρες ἐπὶ τὴν φυλακὴν τῶν ἱερῶν χρημάτων καὶ τὰς ἄλλας εἰσόδους.[44] Of the records published annually by these officials many fragments survive and are collected and edited by F. Durrbach and P. Roussel in *Inscriptions de Délos*, 1400–1479; their length and detailed character will be realized by an examination of the best preserved texts, such as 1417 (155 B.C.) and 1450 (139 B.C.), which, though incomplete, contain respectively 760 and 211 lines, those of the latter being outstandingly long. The Athenian officials are content to follow in general, though by no means slavishly, the lines laid down by the Delian *hieropoioi*. A curious deviation is found in the earliest text of the series (1400), dating probably from 166 or 165 B.C., in the first part of which (ll. 1–16) numbers are written in words and no numeral signs occur (*e.g.* l. 14 τάλαντα δύο μνᾶς τριάκοντα ἑπτά), while in the following section (ll. 17–36) numbers of objects are written in words but weights are expressed by acrophonic numerals in the case of talents and by alphabetic numerals in that of minas; thus τάλαντα 𐅈T μναῖ κ′(l. 23) represents 6 talents 20 minas, and ὁλκὴ T μναῖ ι′, 1 talent 10 minas.[45] This use of alphabetic numerals, unparalleled in other Delian inventories, is more surprising if we bear in mind the tenacity with which Athens clung to the acrophonic system down to the close of the second century B.C.[46] In the last extant section of this record (ll. 40 ff.) weights are always expressed by acrophonic signs.

---

[39] For acrophonic numerals in Delos see *BSA* XVIII 115 f., XXXVII 250 f.

[40] 1403 *Bb* i 23 ff. (soon after 166 B.C.)

[41] 1408*A* ii 38 (?), 1441*A* i 64; *cf.* Roussel, *Délos colonie athénienne* 128.

[42] 1416*B* i 1, ii 69, 93, 116 (156 B.C.); in *B* ii 116 νεοῦ is an error for θεοῦ.

[43] 1417*B* ii 78 (155 B.C.).

[44] 1432*Aa* i 1; *cf.* 1450*A* 2 (139 B.C.).

But our present concern is with the letter-labels which appear frequently in the inventories of this period, especially 1409*Aa*, 1429, 1432, 1441*A* ii, 1443*B* i, 1449, 1450 and 1451*A*, and about them some remarks must be made.[47]

(*a*) With only one exception, letter-labels are never written in words, *i.e.* A is always used, never ἄλφα. The sole exception occurs in 1450*A* 124, where instead of τὰ KK we have τὰ I[I] κάππα [48]; here II stands for δύο, whereas in the preceding item τὰ II stands for τὰ δύο ἰῶτα.

(*b*) The letter-label is invariably preceded by the definite article τό (where the letter is single) or τά (where it is repeated).[49]

(*c*) Before the definite article comes the phrase ἐφ᾽ οὗ (ἧς, ὧν) or ἐφ᾽ ἧι (οἷς, αἷς), relating to the objects bearing the letter-labels. There seems to be no difference in meaning between the genitive and the dative, and the two are often used side by side in the same list, though the genitive greatly preponderates. A curious fact, which I record but cannot explain, is that, where the antecedent is singular, the genitives ἐφ᾽ οὗ and ἐφ᾽ ἧς are almost invariably preferred to ἐφ᾽ ὧι and ἐφ᾽ ἧι,[50] while with plural antecedents ἐφ᾽ αἷς is far commoner than the feminine ἐφ᾽ ὧν, but the masculine or neuter ἐφ᾽ ὧν is used almost to the exclusion of ἐφ᾽ οἷς.[51] Occasionally, but rarely, the locative οὗ takes the place of ἐπί with the genitive or dative; in 1443*A* i 142 we have ο]ὗ τὸ A, in 1449 *Aab* ii 124 οὗ τὸ A, and in 1450*A* 97, 115, 152 οὗ τ[ὸ A, οὗ τὸ Δ and οὗ τὸ A.[52]

(*d*) The double letter-label, AA etc., is never written as τὰ δύο A etc., but once we find τὰ τρία A etc. used in place of τὰ AAA etc., and τὰ τέτταρα A etc. in place of τὰ AAAA etc. (1449*Aab* ii 76 ff., 83 ff.).

(*e*) When a fifth series of letter-labels is required, one of two alternatives is adopted. In 1450*A* 133 ff. we have τὰ AAAAA down to τὰ KKKKK, but elsewhere (1428 i 10 ff., 1432*Aa* ii 16 ff., 1451*A* 27 ff.) the sign 𐅃 (= 5) is borrowed from the acrophonic notation and in it are placed small letters, A, B, etc. In 1432 the series ends with K inserted in 𐅃 (*Aa* ii 21), but it is noteworthy that here K follows Θ with no intervening I.

Marcus N. Tod

---

[45] *Cf.* Tod, *BSA* XXXVII 250 f.

[46] *Cf.* Tod, *BSA* XLV 138.

[47] A few trivial misprints affecting letter-labels may be noted. In 1429*A* ii 29 τὸ Δ should be τὸ Γ, and in l. 31 τὸ Γ should be τὸ E; in 1449*Ba* i 28 τὸ I should be τὸ H, in l. 42 I suspect that οὗ has dropped out before τὸ AA, in l. 63 τὰ ΓΓΓ should be τὰ ΔΔΔ, and in l. 72 τὰ 𐅃𐅃𐅃𐅃 should be τὰ 𐅃𐅃𐅃; in 1450*A* 130 BBB should be BBBB.

[48] The phrase is τὰ I[I] κάππα οὐ παρεδόθη. The absence of the object KK is also recorded in 1429*A* ii 47 [τὰ KK οὐκ ἦν], 1432*Ab* i 72 [τὰ KK] οὐκ ἦν.

[49] Except in 1449*Ba* i 42, where the editors give ἐφ᾽ τὸ AA without comment; the stone probably has, or should have, ἐφ᾽ οὗ τὰ AA (see above, n. 47), though τὸ AA etc. occurs in *IG* II^2 1443.73 ff.

[50] I have noted no examples of ἐφ᾽ ὧι in place of the very common ἐφ᾽ οὗ, and only three of ἐφ᾽ ἧι (ἐφ᾽ εἶ in 1402.5, ἐφ᾽ ἧ twice in 1450*A* 120), as compared with seventy-three of ἐφ᾽ ἧς.

[51] Of ἐφ᾽ οἷς I know only one example, 1450*A* 138.

[52] In 1450*A* 151 the stone has οὗ τὸ Γ, which the editors correct to (ὧν) τὸ Γ, unparalleled elsewhere. We have seen (p. 6) that the inventories of the period of Delian independence always use οὗ (never preceded by ἐφ᾽) in a similar position. Both there and in the examples of οὗ quoted above, οὗ bears a local sense, ‘ where ’. This is shown by (*a*) the use of the word relating to φιάλας in 1450*A* 151, and (*b*) the use of ἵνα in some Athenian inscriptions of the same nature (e.g. *IG* II^2 1429.27 ff., 1443.14 ff.).

EPIGRAPHIC EVIDENCE FOR THE WATER-SUPPLY OF APHRODISIAS[1]

THE main epigraphic evidence for the water-supply of Aphrodisias in Roman times is to be found in the fragmentary inscriptions published by Doublet and Deschamps in *BCH* XIV (1890), 611–13, nos. 7–10, and *CIG* 2782, ll. 40–2. From the former group of texts it has been assumed that two water-systems were installed, one in the time of Vespasian and the other in the time of Domitian [2]; I hope to show that these texts refer to one water-system only, that built in the time of Domitian. From the latter passage it has sometimes been thought [3] that M. Ulpius Carminius Claudianus [4] paid for the laying-on of the waters of the river Timeles to the city in the age of the Antonines. This assumption rested on the false reading ἐλ[ειο]δ[ι]άκτο[υ]ς introduced by Boeckh. The word ἐλειοδίακτος is taken to mean a ‘ conduit for draining marshes ’ (*LS*^{9}, *s.v.*). Sherard’s copy preserves the true reading ἔλ⟨α⟩ια δρακτοῖς πολλάκις τεθεικότα.[5] All that can be proved by the inscription is that Carminius Claudianus made several distributions of oil ἐν τῷ καιρῷ τῆς τοῦ Τε⟨ι⟩μέλου ποταμοῦ εἰσαγωγῆς (l. 41); there is no proof that he paid for the construction of the aqueduct.

The epigraphic evidence for the earlier water-system rests on the reconstruction of the text of which *BCH* XIV (1890), 611–13, nos. 7 (cf. *REG* XIX (1906), 223–4, no. 126), 8 and 9 are fragments; no. 10 seems to be part of another copy of this, or a similar, inscription. Of these fragments the only one found by the expedition led by Professor Calder in 1934 [6] was no. 7; the improved readings in this inscription are from a photograph. The text is completed below by means of two unpublished fragments (which I am allowed to quote by kind permission of Professor Josef Keil of the Österreichische Akademie der Wissenschaften) from Kubitschek’s field-books of his journey with Reichel in 1893 (cf. *Anzeiger der kaiserl. Akademie der Wissenschaften zu Wien*, 1893, 100–3): (*a*) K. III. 31, ‘ w. M. H. 20. Br. noch 93. D. noch 20. Buchst. 2. Allseits gebrochen.’ (*b*) *Ibid.* 31 b, ‘ frag. Buchst. 0·022–0·02; zugehörig.’

θεᾶ ᾿Αφρο[δείτῃ κα]ὶ αὐτο[κράτορι Δομιτιανῶι Καίσαρι Σεβαστῶι Γερμανικῶι]
καὶ τῶι σ[ύμπαν]τ̣ι οἴκωι [τῶν Σεβαστῶν καὶ τῶι δήμωι τῶι ᾿Αφροδισιέων]
῎Αδραστος ᾿Απο[λλωνί]ου τοῦ ῾Υψ[ικλέους τοῦ Μενάνδρου τοῦ Ζήνωνος ὁ γενόμενος]
ἱερεὺς ῾Ηλίου καὶ ἀρχ[ιερ]ε̣ὺς Οὐεσπ[ασιανοῦ Καίσαρος Σεβαστοῦ τὰ ὑδρεγδοχεῖα καὶ τὰς]
5 ἐν αὐτοῖς δεξαμενὰς καὶ τὰ ὕδα[τα καθ’ ὅλην ῥέοντα τὴν πόλιν ὠνησάμενος τοὺς]
περικειμένους τόπους πάντας [καὶ τὰ ἄμφοδα καὶ ἀποκαταστήσας τῇ πόλει καὶ]
κατασκευάσας τὰ ἐν αὐτοῖς [ἔργα σὺν ᾿Αμμίᾳ ᾿Αδράστου τοῦ ᾿Απολλωνίου τῇ ἰδίᾳ]

---

[1] I am indebted to Mr. M. N. Tod for some valuable criticism in the preparation of this note.

[2] R. Vagts, *Aphrodisias in Karien*, 1920, 46–7.

[3] Ramsay, *CB* 189 (accepted by Ruge in *RE* VI A, col. 1250, *s.v.* ‘ Timeles ’): ‘ It was certainly the second (Carminius Claudianus) who introduced the water of the Timeles into Aphrodisias by means of an aqueduct. In honour of this important event, the city struck coins with the legend ΤΙΜЄΛΗϹ, which belong, as M. Waddington writes to me, to the age of the Antonines. The name could not be put on coins of the city until the aqueduct was made, for the river does not belong to the territory of Aphrodisias, but to that of Herakleia Salbace.’ For an example of a coin with the legend ΤΙΜЄΛΗϹ see *BMC Coins, Caria* 29, no. 22. For a discussion of the Timeles and its relation with the water-supply of Aphrodisias, see L. and J. Robert, *La Carie* (1954), II 48–49.

[4] See *PIR*^{2} II 103, no. 433. Magie, *Roman Rule in Asia Minor*, seems to place him in the Flavian period on p. 587, and in the age of the Antonines on p. 657.

[5] See Liermann, *Analecta epigraphica* 76 and 82, and Le Bas-Waddington, III 374, no. 1602 b.

[6] American Council of Learned Societies, *Bulletin* 23, June, 1935, 29, 119–21.

vacat *vacat*
θυγατρὶ ἀνέθηκε τοῖς προγεγρ̣[αμμένοις θεοῖς καὶ τῶι δήμωι ἐκ τῶν ἰδίων]
ὑπαρχόντων ἐπιμελη[θείσης καὶ ᾿Αμμίας τῆς θυγατρὸς αὐτοῦ.]

The underlined words are supplied as follows:

L. 1. ορι Δο̣ K. (*b*).
Δομιτιανῶι . . . . Γερμανικῶι *BCH*, no. 8.
L. 2. ε̣β̣α̣ K. (*a*); the top of the *alpha* appears in (*b*).
βαστῶν . . . . δήμωι *BCH*, no. 8.
L. 3. ς τοῦ Μεναν̣ K. (*a*).
νδρου . . . . γενόμενος̣ *BCH*, no. 8.
L. 4. υ Καίσαρος Σεβαστο K. (*a*).
υ τὰ ὑδρεγδοχεῖα καὶ τα *BCH*, no. 8.
L. 5. θ' ὅλην . . . . . ὠνησαμε K. (*a*).
νος *BCH*, no. 8.
Ll. 6–7. All underlined words from K. (*a*).
Ll. 8–9. All underlined words from *BCH*, no. 9.

The apparent inconsistency in the treatment of *iota mutum*, *e.g.* in ll. 1 and 2 (an inconsistency common enough in inscriptions of the Roman period), appears on the stone, where it is absent in θεᾶ, a dot in the middle of the line taking its place, and present in τῶι οἴκωι. The *vacat* on the stone between ll. 7 and 8 and also below the last line of fragment (*a*) in Kubitschek's note-book confirms the attribution of the fragments to the same inscription.

It would appear from ll. 4–7 that the installation of this water-system was a major operation, involving the construction of reservoirs and the carrying of water to all parts of the city; this was preceded by the buying up of the property (subsequently handed over to the city) through which the water-pipes were to run. The reservoirs and pipes which G. Weber [7] examined at Aphrodisias and related to the period of Carminius Claudianus may, as Vagts suggested,[8] more probably be those of Domitian's reign referred to in our inscription. At any rate, the reconstruction of this text has shown that the installation of a separate water-system in the time of Vespasian can no longer be substantiated by the epigraphic evidence.

J. M. R. CORMACK

---

[7] *JdI* XIX (1904), 91–2.

[8] *Loc. cit.* 49, n. 5.

INSCRIPTIONS FROM ESKIŞEHIR AND DISTRICT

(PLATES 1–2)

WHILE travelling in Turkey in 1951 as Wilson Fellow of the University of Aberdeen, I visited Eskişehir (Dorylaion) and a number of villages in that area. In the interval between Cox and Cameron's exhaustive survey of that district and my own visit, a considerable amount of new material has come to light, as is generally the case in Anatolia. The following[1] inscriptions are of some interest:

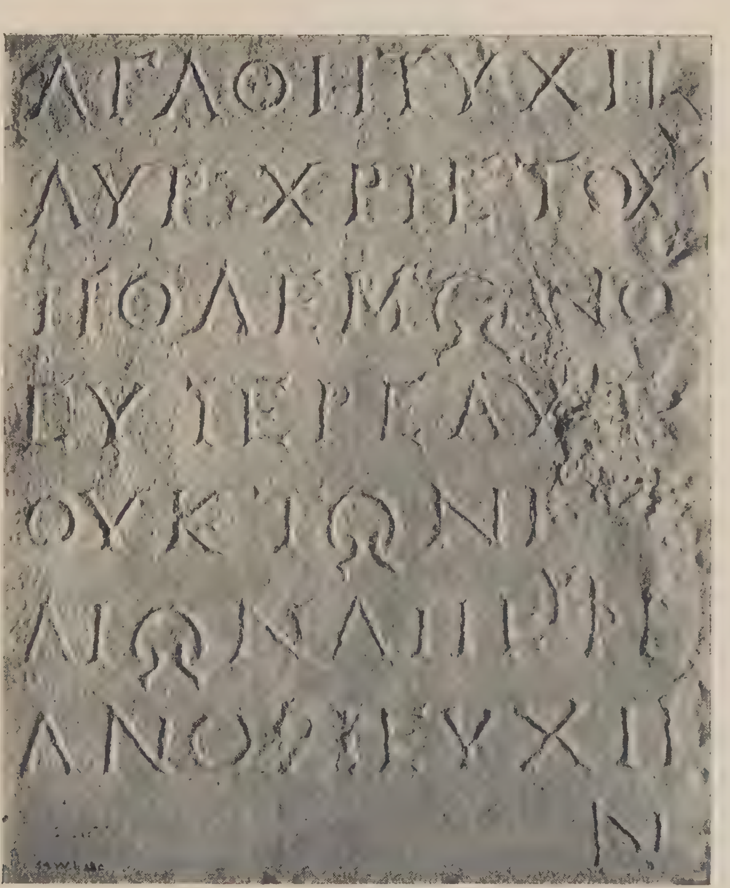


FIG.—INSCRIPTION 1, MENTIONING ZEUS EUPHRANOR.

1. Eskişehir, Museum Depôt Inv. no. 186.[2] Grey marble *bomos* with acroteria; slightly damaged, and badly weathered at one point in the inscribed area. Mouldings

---

[1] I should like to record my thanks to Prof. A. Cameron and Mr. J. M. Cook, who kindly read this article in manuscript.

[2] The provenance of the inscriptions nos. 1–5 is uncertain, but is believed to be the villages around Eskişehir.

above and below. In pediment, part of an eagle, probably the eagle of Zeus; see L. Robert, *RevPhil* XIII (1939), 203 f.

H. (visible) 1·1 m.; W. 0·49 m., (shaft) 0·36 m.; Th. 0·325 m. Letters 0·035 m. to 0·048 m.; average 0·037 m., with heavy apices and ligatures.

Photograph of squeeze, FIG.

ἀγαθὴ τύχη·
Αὐρ. Χρῆστος
Πολέμωνο-
ς ὑπὲρ ἑαυτ-
οῦ ϗ τῶν ἰ-
δίων Διὶ Εὐφρ-
άνορι εὐχή-
ν.

The reference to Zeus Euphranor is new.

2. *Ibid.* Inv. no. 37. Grey marble stele with acroteria. In pediment, a figure holding a pair of lions (probably Cybele); in field, left, draped male figure seated on chariot drawn by four horses; right, bust of female figure with right hand on breast.

H. (visible) 2·44 m.; W. (base) 0·89 m., (shaft) 0·685 m.; Th. 0·21 m. Letters 0·04 m. to 0·042 m., with apices.

Photograph PLATE 1, *a*.

Πρωτᾶς ϗ Ἀπολ-
λώνιος ϗ Ἀσκλη-
πᾶς οἱ Γαΐου ὑπὲ-
ρ τῶν ἰδίων Ὁσί-
ω ϗ Διϗω εὐχήν.

For a close parallel to this stone, see A. Körte, *GGA* CLIX 1 (1897), 408, no. 50; *ÖJh* XI (1908), Beibl. 197 f.; for Ὅσιος ϗ Δίκαιος, see *AM* XXV (1900), 432, n. 4 and 433, 434; *Cat. Mus. Constantinople* III 54, *cf.* 52. *Cf.* also *Wiener Jh* XXXII (1940), Beibl. 122, no. 6, l. 8; *AM* XXV (1900), 431 ff. (in no. 54, l. 3, read οἱ Δόμνου Ὁσίω καὶ Ἀπόλλωνι κτλ., instead of θείω as Körte suggests); and *AM* VII (1882), 135, where Ramsay remarks that 'the coins of Prymnessos prove that the deities worshipped in it were Zeus and Cybele under a somewhat unusual form; she bears a balance in the right hand and a cornucopia or some other symbol of fertility in the left.'[3] Buresch, however, comments (*Aus Lydien*, 75 f.) on a text from Emre Köy, near Maionia, '*Dieser namenlose Gott ist kein anderer als Men*'. See also L. Robert, *RevPhil* XIII (1939), 204. L. Robert also promises a full discussion of Ὅσιος ϗ Δίκαιος in a forthcoming publication.[4]

3. *Ibid.* Inv. no. 215. Grey marble stele broken above and below; moulding on right and left. In field, lower part of standing figure in relief, who holds a thunderbolt.

H. 0·73 m.; W. 0·45 m., (shaft) 0·36 m.; Th. 0·11 m. Letters 0·035 m. to 0·04 m.

Photograph of squeeze PLATE 2, *a*.

---

[3] Cf. *Cat.Mus.Constantinople* III 53, 'Elle tient un bâton court, sans doute une coudée, et de la main droite, baissée aussi et légèrement écartée, un objet mutilé qui ne peut guère être qu'une balance.'

[4] For Ὅσιος alone, cf. *MAMA* VI, no. 389.

Ἀπολλώνιος
Ἀπολλων̣ίου ϗ
Ἀμία μήτηρ Διὶ
Βροντῶντι εὐ-
χήν.

Line 2. The restoration is certain. There is not enough space for Ἀπολλωνίδου, a name which I quote from another inscription hitherto unpublished: see No. 13 below.

Line 3. For the name Ἀμία in this area, see *MAMA* V 119, no. 251; *AM* XXIII (1898), 161.

4. *Ibid.* Inv. no. 192. Grey marble *bomos,* with acroteria and mouldings on all faces. In relief on right face, a wreath between two ox-heads. Stone broken on sides and rear, and part of the inscribed area damaged.

H. (visible) 0·777 m.; W. 0·505 m.; Th. 0·457 m. Letters 0·019 m. to 0·022 m. Badly weathered.

Ἀ]γαθὴ τύχ̣η·
. ΙΚΑΒΟΡ . . . . . ΟΙ
θεᾷ τετραπροσώ-
πω [εὐ]χήν.

Cf. *MAMA* V no. 101, with references there given; *Hellenica* II 153; *JHS* XIX (1899), 303, no. 237; *CIG* 4120; *JHS* III (1882), 125. Unfortunately the condition of the stone prevents a satisfactory restoration of line 2, which presumably conceals an ethnic. The squeeze rules out the possibility of a name ending in -αγορα. οἱ Κάβορκοι (see *JHS* VIII (1887), 502, and *MAMA* V, Introduction xxxi) appears attractive at first sight, but would not be of sufficient length to fill the lacuna.

5. *Ibid.* Inv. no. 57. Grey marble stele with acroteria; in pediment, rosette; in field, defaced ox-head.

H. 1·38 m.; W. (base) 0·45 m., (shaft) 0·37 m.; Th. 0·185 m. Letters (slight apices) 0·016 m. to 0·02 m.

Κλωδία
Σοφοκλέ-
ως θυγά-
τηρ καὶ Τερ-
τίας παρ-
θένε, χαῖρε·
ΔΑΚΑΡΕΝΠΑ
ΤΕΡΗϹЄΥΚΙΝ
ΑΡΓΟΥ *vac.*

Lines 7 ff. This formula is probably Phrygian. I know of no parallel for the first part, but ЄΥΚΙΝΑΡΓΟΥ occurs in a different position in Heberdey-Wilhelm, *Reisen in Kilikien = Denkschriften d.k.Akad. in Wien* XLVI (1896), Abh. VI 163, no. 271: provenance, Akşehir (Philomelion). Ramsay (*JOAI* VIII (1905), 86 f.) sought to explain ΑΡΓΟΥ as a feminine name in the genitive, but the present text does not support that interpretation. Heberdey-Wilhelm, *op. cit.*, refrain from commentary.

6. Alpanos (30 km. south-east of Eskişehir). White marble *bomos* broken above; part of a *boukranion* in relief remains; mouldings left, right and below.

H. 0·178 m.; W. 0·46 m.; Th. 0·12 m. Letters 0·03 m. to 0·052 m. (ligatures).

Εὔψυχος Ἀττ-
άλου πατρὶ θε-
οφιλήτω ϗ
Διὶ Βροντῶ-
ντι εὐχήν.

Line 2. The *theta* is not now visible, but is preserved in a copy made in 1939 by Bay S. Wehbi Toral, a Ministry of Education official at Eskişehir.

7. *Ibid.* Grey marble stele buried upside down in village street. Damaged on right below.

H. (visible) 0·75 m.; W. 0·47 m., (shaft) 0·18 m.; Th. 0·26 m. Letters 0·02 m.

[καὶ ὁ̣ δεῖνα Ὀ-]
λυνπ̣[ίχ-
ου εὐξ[άμενο̣ι
περὶ πα[τρὸς
ἀνέστ[ησαν
ἐ]κ τῶν ἰδί[ων αὐ-
τῶν Διὶ Β-
ρ̣ο̣ν̣τ̣ῶ̣ν̣-
τ̣ι εὐχ[ήν.

Lines 1–3. Ὀ]λυνπ̣[ίχ]ου. N for M is common enough in Asia Minor. I quote a parallel from an inscription from Afyonkarahisar Museum. Inv. no. 2975. From Çobanlar Köy. A small white marble stele with acroteria; the pediment contains a boss. H. 0·23 m.; W. 0·17 m., (shaft) 0·115 m.; Th. 0·035 m. Letters 0·005 m. to 0·014 m.

Ἀμμία Παπίου μητρὶ
Ὀλυνπια-
νῆ
εὐχήν.

Line 8 is hammered, but slight traces of the letters remain.

8. Alpanos. White marble stele, damaged above and on left. Traces of a wreath remain visible below the inscription.

H. 1·38 m.; W. (shaft) 0·52 m.; Th. 0·19 m. Letters 0·028 m. to 0·032 m.

Ἀπολλώνι-
ος Ἡνιόχου
[καὶ - - -]
-η̣ς Ἀπολλωνί-
ου ἱερεῖς Διὶ Βρ-
ο̣ντ̣ῶ̣ντι εὐ-
χήν.

9. *Ibid.* Grey marble stele, broken above on left and right; left edge damaged; broken below. In the centre, a wreath in relief; to the right of the wreath the inscribed area is much damaged.

H. (visible) 1·1 m.; W. 0·73 m.; Th. 0·17 m. Letters 0·024 m. to 0·04 m.

Αὐρη. ?] Τρύφων
ϗ Ἀ]ὐ̣ρ̣η. Ἀσκληπᾶς
ἱε]ρεὺς σὺν υεἱῶ {δὲ} Ἀσ[κ-
ληπᾶ *vac.* περὶ τ̣-
5 ῶν τέκνων *vac.* ἰδίων
ἀνέ- *vac.* θηκα[ν
περὶ *vac.* πατρ-
ίδος π- *vac.* ολυθ-
ενίας *vac.* περὶ κ-
10 αρπῶν τηλεσφορίας
Διὶ Βροντῶντι ἐπιμ-
α⟨ρτ⟩ύρω εὐχήν.

Lines 1–2. The restoration here is made with some reserve.

Line 3. δέ, which is clear on the squeeze, obscures the sense.

Line 7 ff. The prayer for the fertility of crops is natural in this part of Anatolia; see *AEMO* VII (1883), 174, no. 15, *MAMA* V 125, 126, 152, 153, 218, 220 and R.8, *IGR* III 36, *BCH* XX (1896), 108, no. 2, *Études Anat.* 243, *RevPhil* XIII (1939), 204, *Coll. Froehner* 60–1, *REA* XLII (1940), 313, no. 7, *ADelt* VII (1922), παραρτ. 2.

Lines 8–9. πολυθενία. Not in *LS*^{9}. Cf. *MAMA* V, nos. 79, 224. ([εὐθ]ενείας, [εὐ]θηνεί[ας]).

Line 10. τηλεσφορία (for τελεσφορία) is not given in this sense in *LS*^{9}.

Line 11. The reading from the squeeze is ΕΠΙΜΑΜΥΡϢ. It is perhaps just possible that this is a local epithet of Zeus Bronton, but in view of the rather outlandish forms πολυθενία and τηλεσφορία above, it may not be rash to conjecture ἐπιμαρτύρω as a dative of the adjective cited in *LS*^{9}. For an example of this word in an inscription, see Kaibel, *Ep. Gr.* 905.

10. *Ibid.* Grey marble stele, broken above and at left; traces of bust in relief above.

H. (visible) 1·1 m.; W. (visible) 0·68 m.; Th. 0·2 m. Letters 0·04 m. to 0·05 m. with apices.

Photograph of squeeze PLATE 1, *b*.

Φωτεινὸς σὺ-
ν ἀδελφοῖς ϗ̣
ἀδελφαῖς Ἰ̣ω̣ν[ία
μητρὶ ϗ̣ Διὶ Βρ̣-
5 ο]ντῶντι
ε]ὐχήν.

Published *MAMA* V 149, R.5.

For other inscriptions from Alpanos, see the bibliography in *MAMA* V, and add:

11. White marble ‘ doorstone ’.

H. 1·1 m.; W. 0·018 m. Letters 0·018 m. to 0·035 m. Photograph of squeeze Plate 2, *c*.

Χρύσιον Αἰσμένης ἀνδρὶ ἰδίω
καὶ τὰ τέκνα αὐτοῦ μνήμης χάριν.

12. Grey marble stele.

H. 2·25 m.; W. (shaft) 0·68 m.; Th. 0·14 m. Letters 0·036 m. to 0·048 m.

Αὐρ. ῎Αταλος
Δόμνου ἀδ-
ελφῶ γενέ-
ω σὺν μητρὶ
Χελειδόν-
ι μνῆς χάρι.

Lines 3–4. γενέω is presumably for γενναίω.

Lines 5–6. For the name Χελείδων, see *BCH* LI 400 no. 27 with references there, and *MAMA* V, nos. 154 and 267.

Line 6. For the form μνῆς, cf. *MAMA* I 110.

13. Bursa Museum. Inv. no. 2156, from Günece Köy, near Yenişehir, about 50 km. east of Bursa. Hitherto unpublished. See No. 3 above.

Photograph Plate 2, *b*. The following from a squeeze:

’Αρτέμων ’Απολλωνίδου ζῶν καὶ φρονῶν
ἀνέστησεν τὸν βωμὸν καὶ τὴν ὀστοθήκην
ἐκ τῶν ἰδίων αὑτῶ καὶ τῆ συμβίω αὐ-
τοῦ Λογγείνη τῆ καὶ Φιλή-
τη· ἀξιῶ δὲ ἀνεξοδί[αστον.

Lapis οοτοθηκην. For a bibliography of the inscriptions, mostly Bithynian, in which the word ἀνεξοδίαστος occurs, see L. Robert, *Hellenica* I 60–63 and II 147. In none of these instances does the phrase ἀξιῶ δὲ ἀνεξοδίαστον occur, but here too, as L. Robert observes of the other instances, ‘ (le mot) est détaché du reste de l’épitaphe, isolé comme dernier mot ou entre deux phrases ’.

I. W. Macpherson

NOTES ON ATTIC INSCRIPTIONS

(PLATE 3)

I. THE PRAXIERGIDAI

IG I^2 80 +; Paton, *The Erechtheum* (1927), 449–450; Wade-Gery, *JHS* LI (1931), 82; Ferguson, *Treasurers of Athena* 176; Dinsmoor, *AJA* XXXVI (1932), 312; Deubner, *Attische Feste* 19; *SEG* X 28; Raubitschek, *Dedications from the Athenian Akropolis* 323.

The *editio minor* publication of this decree curiously failed to take into account Wilhelm's discussion of its epigraphical problems.[1] The facts were correctly stated by him. Fragment *b* has its left margin preserved, and since the width of the stone can be determined from fairly certain restorations in fragment *a*, considerably more sense can be made out of the third part, the πάτρια of the Praxiergidai, than either Ziehen or Hiller attempted.

EM 6629; three fragments of Pentelic marble with back preserved. Fragment *a* has its top preserved, fragment *b* its left edge, fragment *c* its right edge. Original thickness 0·065 m., but the back slopes to each edge. Parts I and II are cut with a horizontal chequer of 0·0106 and a vertical chequer of 0·0104 with chisels measuring 9, 7·5, 6, and 4 mm. Part III is cut with a horizontal chequer of 0·0129 and a vertical chequer of 0·0126 with chisels measuring 11, 9, 7·5, and 4 mm.

I *a* ΣΤ. 40

[ἔδοχσεν τε͂]ι βο[λ]ε͂[ι καὶ τοῖ δέμοι, . . . 6 . . ἐπρυτάνε-]
[υε, . . . 6 . .]ς ἐγραμμ[άτευε, . . . 7 . . . ἐπεστάτε, . . 5 . .]
[. εἶπε· πε]ρ̣ὶ ὃν δέο[νται Πραχσιεργίδαι, τὲν μαντεί-]
[αν το͂ θ]εο͂ καὶ τὰ πρ̣ό̣[τερον αὐτοῖς ἐφσεφισμένα ἀνα-]
[γράφσ]αντας ἐν στέ[λει λιθίνει καταθε͂ναι ἐμ πόλε͜ι]
[ὄπισ]θεν το͂ νεο͂ το͂ ἀρχ[αίο· hoι δὲ πολεταὶ ἀπομισθο-]
[σάν]τον·*v* τὸ δὲ ἀργύριο[ν ἐς τὲν ἀναγραφὲν ἐ͂ναι ἀπὸ]
[το͂ν] τε͂ς θεῶ κατὰ τὰ πάτρι[α· hoι δὲ ταμίαι τε͂ς θεο͂ καὶ]
[hoι] κολακρέται διδόντον [αὐτοῖς τὸ ἀργύριον. *vacat*]
II [τά]δε ho Ἀπόλλων ἔχρεσεν ν̣[όμιμα Πραχσιεργίδαις]
[ἀμ]φιεννύοσιν τὸν πέπλον τ̣[ὲν θεὸν καὶ προθύοσιν]
[Μοί]ραις, Διὶ Μοιρ⟨α⟩γέτει, Γ[ε͂ι - - - - - - - - - - - - - - - -]

vacat 3·5 *cm.*

I am deeply indebted to Prof. A. Andrewes, Mr. J. M. Cook, Mr. R. Meiggs, and particularly to Mr. A. M. Woodward, who have read the following in whole or in part and given much valuable advice; to Professors B. D. Meritt, H. T. Wade-Gery, A. E. Raubitschek, and Mr. G. A. Stamires, for help on various points; to Prof. W. B. Dinsmoor, Prof. W. K. Pritchett, Dr. M. Mitsos, Mr. E. Vanderpool, and Mr. W. G. Forrest, for assistance in matters of readings and joins; to Miss Lucy Talcott of the Agora Museum and Dr. Mitsos of the Epigraphical Museum, for their patience; to Mr. R. V. Nicholls and Mr. J. Boardman for the photographs. I hope that these gleanings are not an entirely inadequate return for their invariable kindness and for the generosity of the Institute for Advanced Study, the Jane Eliza Procter trustees of Princeton University, the Oxford Craven Committee, and the Warden and Fellows of New College.

Abbreviations

ATL	Meritt, Wade-Gery, McGregor, *The Athenian Tribute Lists.*
PA	Kirchner, *Prosopographia Attica.*
GHI	Tod, *Greek Historical Inscriptions.*
Michel.	Michel, *Recueil d'Inscriptions Grecques.*

---

[1] In Prott-Ziehen, *Leges Graecorum Sacrae*, II i, 58 ff., no. 14.

III ΣΤ. 32–33

[τάδε] πάτρια Πραχ̣σ̣[ιεργίδαις· . . . . 9 . . . .]
[. . . 8–9 . . .]ι̣το[. . . . . 21 . . . .]

lacuna

[. . . . . 28–29 . . . . . π]αρέ
[χεν . . . . . 11-12 . . . . . Πραχσιεργί]δ̣α̣ις *vvvv*
[. . . . . 21–22 . . . . . . τὸ] δὲ κόιδιον *c*
[. . . . . 18–19 . . . . . . διδό]ν̣αι κατὰ τὰ *v*
[πάτρια . . . . 15–16 . . . . π]αρέχεν *vvvv*
[. . 5–6 . .]ε̣[. . . . . . . 14 . . . . . .]ι·[ν]ε̣ὼ δὲ Θαργελ͜ι
[ὄν]α σεμε[νάμενον ἄχρι τε͂ς τ]ρ̣ίτες διδόνα͜ι̣
b [*v*] κατὰ τὰ πάτρ̣[ια κλε͂ιδας τὸ]ν ἄρχοντα *vvv*
[*v*] Π̣[ρ]α̣χσιεργ̣ί̣[δαις· ? *vacat*] *vacat*
[*v* τὸς] Πραχσιερ̣[γίδας τὸ hέδος] ἀμφιεννύ[ν]
[α͜ι με]δίμνον χι̣[λίον ἒ μνᾶν ἀπο]τίνεν *vacat*

vacat *vacat*

Notes on Readings

Line 3. The surface seems completely broken where previous editors have reported *lambda* in the sixth space. In the eighth space only the *hasta* of the *rho* can be seen, but [περ]ὶ ḥο͂ν cannot be read, for the surface is preserved before the *hasta* in the ninth space, and no trace of a crossbar for the aspirate is visible. The choice for the ninth letter is between an *iota* displaced slightly to the right and a *nu*, of which the diagonal may have run along the break. Such a *nu* would be the only one in the inscription with a vertical right *hasta*, and would present considerable difficulties of restoration. For the aspirate of ὧν being omitted in an inscription otherwise observing it, cf. *IG* I² 110.8. The horizontal bar of *delta*, doubted by previous editors, is certain, though faint.

Line 8. Although the *editio minor* reads θεõ, the *omega* is quite clear. For this strange phenomenon, see Raubitschek, *op. cit.* 113.

Line 10. Prott seems correct in reporting the left-hand stroke of the final *nu*.

Line 11. The tip of the horizontal of the final *tau* appears to be visible.

Line 12. Hiller reads Γε͂[ι], but I see no trace of *epsilon*. The *alpha* of Μοιραγέτει has no crossbar.

Lines 13–25. The cutter certainly felt himself at liberty to cut an additional *iota* in the last space, and since he presumably filled the first space in 11, 13, and 21, and probably did not in l. 23, there is nearly always some uncertainty about the line-length.

Line 20. *Omega*, though previously unreported, is quite clear, and there seem to be traces of *epsilon* before it. The *iota* I read on the left-hand edge of fragment *c* seems too deep to be merely a scratch.

Line 21. Prott saw a punctuation-mark after the first *alpha*. It would be surprising, and I cannot confirm it. The surface has partly gone before]ιτες, but the oxide traces (see Meritt, *Epigraphica Attica* 24) outline the curve of the *rho*. The final *iota* is by no means certain, and there would be room for it in the first space of the next line.

Line 22. The first *nu* on fragment *c* is unreported, but traces of it are clear.

Line 24–5. There is no room for να in the last space of l. 24, but αι would go comfortably in the first space of l. 25.

Line 25. The last *iota* on fragment *b* is not certain, but there is no room for any other letter in the space. Part of the *hasta* of *tau* appears to survive on fragment *c*, but it may well be just a scratch.

Commentary and Restorations

I have little to add to the remarks of Wilhelm and Raubitschek on the date. In default of any parallel to the curious *lambda* which leans backward and starts with a curl, we must be guided by the *phi* with its non-protruding stroke, the straggly *nu*, and the inconsistent use of *omega* to a date between 470 and 450, and the rounded *betas* and *rhos* suggest a later rather than an earlier date in the period. The four-bar *sigmas* are an Ionicism. As Wilhelm says, the supposed law about datives in -αις should not be allowed to outweigh the evidence of the letter-forms. I do not think that there is anything else to support the view of the *Corpus* editors that the inscription is archaistic of the late fifth century.

The division of the document into a decree, Apollo's oracle, and the πάτρια of the Praxiergidai is due to Prott and is clearly right. Ll. 3–4 are easily restored as the granting of the request that Apollo's oracle, clearly recent, and their πάτρια be inscribed on marble. I have restored ἐφσεφισμένα, which fits the line well and seems more suited to πρότερον than πάτρια or νόμιμα. I do not think τὰ πρότερον πάτρια or τὰ πρότερα πάτρια to be Greek, and I suggest an implied assertion by the *demos* that even the oldest privileges depend on the will of the people.

In l. 6 νότοθεν is also a possibility, though now only supported by *IG* I^2 167. 10, since later work has discarded the old restorations in I^2 4. 9 and 6. 117.

From l. 7 onwards Ziehen rejects Prott's interpretation that the setting-up of the *stele* is still in question, and offers the restoration τὸ δὲ ἀργύριο[ν hόστε ἀμφιέννυσθαι τὸ hέ | δος] τε̃ς θεῶ κατὰ τὰ πάτρι[α καὶ τὲν μαντείαν τõ θεõ | ho]ι κολακρέται διδόντον.

This is based on the present imperative διδόντον and on the solemn character of κατὰ τὰ πάτρια. διδόντον is certainly difficult, but Ziehen's restoration seems to me to introduce an irrelevance which there are no sure grounds for supposing. It is difficult in language. Even if the hόστε construction were at all normal, we would expect ἀμφιεννύναι (as an anonymous note in the Epigraphical Museum copy of *IG* I^2 points out); and it is not normal, for ἐς τὲν ἀμφιέννυσιν is the natural construction after ἀργύριον. Furthermore, Ziehen makes no satisfactory restoration of ll. 6–7. He suggests [αὐτοὶ δόν]τον or [τέλεσιν τοῖς hεαυ]τõν, and I have not yet found any method of making these fit the available space. Since the standard formula [hοι δὲ πολεταὶ ἀπομισθοσάν]τον fits exactly, I have little hesitation in restoring it. The *stele* is then still not paid for, and the provisions for payment must lie in ll. 7–9. I suggest that they provide that the payment should be made from the goddess' own money. The publication is a sacred matter, and for sacred expenses the goddess should pay, according to ancestral custom. But I cannot explain the change of tense in διδόντον, unless the first two letters are due to dittography.

For ll. 10–11 I return to Ziehen's restoration, because I believe the first letter of νόμιμα to be on the stone, and because Wilhelm's restoration[2] leaves out Πραχσιεργίδαις, which is necessary to the sense, and is a letter short in each line.

Of ll. 15–20 I attempt no restoration. Ziehen's suggested restoration of 17–19 cannot be made to fit the space.

[2] Printed in *IG* I^2, and argued in his *Neue Beiträge* III 24.

In l. 20]ε̣ω must be restored as νεώ, a form of the accusative otherwise unknown in the fifth century. As Ziehen saw, there is only room for Θαργελι[ο͂ν]α in the accusative, but he failed to restore it because he could make no sense of σεμε. '*De quo signo sermo esse possit, nondum perspicio.*' To me it seems inevitable that the letters must be taken as the beginning of σημηνάμενον, exactly parallel to the use of συσσημαίνομαι in *IG* I^2 91. 17, and I restore accordingly the sense that the archon, who would seem to be the *eponymos*, though we would have expected the *basileus*, is to seal the temple for the month of Thargelion and hand the keys over to the Praxiergidai.

With this restoration, and I see no other, we have gained a little fresh evidence for the topography of the Acropolis after 480. Though the πάτρια probably antedate the Persian Wars, they must have relevance to the circumstances *circa* 460. It seems, then, that at that date the olive-wood statue, of which the Praxiergidai had charge, stood in a building which could be described as a νεώς and could be locked up. To a follower of Dörpfeld this will present no difficulties. The statue, for him, stood in the rebuilt poros temple until the construction of the Erechtheum. This *stele* will have been erected either to the west or to the south of the temple, which gives us a free choice of restoration in l. 6, in close connection with the scene of the annual task of the Praxiergidai. But the grounds for believing that the statue stood in Holland's 'east temenos' on the present site of the Erechtheum [3] are very strong. Its presence there explains the orientation of the Erechtheum and provides a natural sense for ὁ νεὼς ἐν ᾧ τὸ ἀρχαῖον ἄγαλμα.[4] Of the two main forms of this theory, the new restoration seems to tell against Dinsmoor's view that the statue was simply covered by a baldachino.[5] I do not think that a baldachino would be described as a νεώς, nor do I know how one would lock it. I am inclined to think that Paton's hypothesis [6] of a rather more solid structure on the site is to be accepted, but I must leave the decision to others.[7] On this view the ἀρχαῖος νεώς of l. 6 can be identified with the νεώς of l. 20.[8] On any other view, except Dörpfeld's, the *stele* is being located with reference to a temple destroyed and out of use.

Whatever it is, the temple is to be closed for the whole month of Thargelion.[9] This accords well with the ἱερομηνία in which the Kallynteria and the Plynteria took place, which has already been deduced by Mommsen.[10] From the fact that the Praxiergidai take over the temple for the whole month we may infer for them a connection with the Kallynteria which is nowhere explicitly stated. The two festivals are closely connected. One of the things that the Praxiergidai did on the Plynteria was to remove some κόσμος.[11] May we not infer from this that some more positive decoration took place on the Kallynteria than Mommsen [12] and Deubner,[13] who only admit of a cleaning of the shrine and perhaps a refilling of the lamp, will allow?

The temple is to be closed [ἄχρι τε͂ς τ]ρ̣ίτες, which would naturally be interpreted as τρίτη φθίνοντος. We can thus add one more point against Photius' dating of the Plynteria to δευτέρα φθίνοντος, which Mommsen [14] has already convincingly rejected in favour of Plutarch's ἕκτη φθίνοντος.[15] The Praxiergidai are therefore given two days to prepare the shrine for re-opening. ἄχρι has a spatial sense in its few other inscriptional appearances in Attica, but there are adequate Attic parallels for the temporal use in Demosthenes.

---

[3] *AJA* XXVIII (1924), 11–23, 406–23.

[4] *IG* I^2 372. 1.

[5] *AJA* XXXVI (1932), 318. But Prof. Dinsmoor, who kindly read an early draft of this paper, tells me that he sees no reason to modify his view.

[6] *The Erechtheum* 444–445.

[7] Dinsmoor's reasons for rejecting this theory are summarised in *AJA* LI (1947), 108, n. 9. Those who have supported it are listed *ibid.* 119, n. 45.

[8] *The Erechtheum* 465–66. Miss E. Brann has helped me considerably with the whole topographical question.

[9] *IG* I^2 6. 83 is not an exact parallel for the accusative, since there the whole month is in the accusative and the part months are in the genitive. But twenty-seven days may have been so near a whole month that the accusative seemed more natural.

[10] *Feste der Stadt Athen* 487.

[11] Plutarch, *Alcibiades* 34.

[12] *Op. cit.* 495.

[13] *Attische Feste* 20.

[14] *Op. cit.* 491–493.

[15] *Loc. cit.*

Ll. 24–25 are very difficult, but the restorations are virtually compulsory. [με]δίμνον χι̣[λίον] must be connected with ἀμφιεννύναι, since there is no room for a conjunction. There appears to be no other use of the *medimnus* as a cloth measure. τός at the beginning of l. 24 is extremely unpleasant, but preferable, I believe, to καί. At the end of l. 25 [ἒ μνᾶν ἀπο]τ̣ίνειν meets both the sense and the space well.

II. ATHENS AND AEGINA

The date, 457, assigned to *IG* I² 18 by Hondius, which went unquestioned for twenty-five years, has now been challenged by Meiggs and Andrewes, who date it between 457 and 445. I am emboldened by this to suggest a new context for this exasperatingly small fragment, which together with the evidence from the tribute-lists is all we have to supplement the scanty literary evidence on the way in which the state which had been Athens' strongest rival was reduced to subjection and then to temporary extinction.

To the physical details in the *editio minor* I add that part of the rough-picked, uninscribed back is preserved, and that the inscription was cut with three chisels measuring 8, 6·5 and 5 mm. in a horizontal chequer of 0·0127 m., broadening slightly at the bottom, and a vertical of 0·0122 m. To the latest bibliography in *SEG* X 8, add Nease, *Phoenix* III (1949), 104, and Hill's *Sources*, revised by Meiggs and Andrewes B 24. Photograph in Hondius, *Novae Inscriptiones Atticae* 3.

[. . . . . 9 . . . .]ε̣ . λ̣[ ]
[. . . . τ]οῖς Αἰγι[νετõν - - - - ἐπὶ ? κ-]
ακοργίαι δὲ τε͂[ι]
ν τὲμ *vv* φυλακὲ[ν]
ντα χσυνκείμε[να - - - - - - - - - hα-]
ί εἰσιν αὐτοῖς π̣[- - - - - - - - - ἐπὶ]
βλάβει τε͂ι ’Αθεν[αίον]
ον μὴ πεμαίν *vv* ε[ν]
ν· ἐὰν δὲ αἴτιοι ι̣[- - - - - - - - στρ-]
ατεύεσθαι ἐπὶ τ [ ]
κες ὅσες αὐτ̣ . ι̣[ ]

Line 2. The initial *tau*, read by Hiller and Hondius, is right on the break and may not be a stroke.

Line 6. All editors read the last letter as *mu*. The aspirate, *nu*, *rho*, and *pi* are at least equally possible.

Line 8. The surface is preserved, and I follow Hondius, rejecting Hiller and Klaffenbach's πεμαίν[εν] ε, Crönert's πεμαίν[ε]ν ε, and Nease's πεμαίνε[ν] ε.

Line 9. The surface is badly scratched, which misled Hiller and Klaffenbach into αἴτιοι γίγ[, quite impossibly. Hondius read αἴτιοι γ[with an Ionic *gamma* and without comment. Even with an Ionic *eta* in the line above, it seems unwise to read the *gamma*, particularly since we would have to assume it badly bent. I follow Nease.

Line 11. Hiller αὐτ̣οῖ[ς, Hondius αὐτ̣ο̣ῖ̣ς̣.

Commentary and Restorations

The fifties and forties are a time of rapid development in Attic letter-forms, and it seems clear to me, at any rate, that this inscription comes near the end of the development. With the Erechtheid monument (*IG* I^2 929), the most securely dated inscription of the early fifties, it has nothing in common. Its kinship lies rather with the Miletus decree of 450–49 (IG I^2 22), as Nease points out, and with the Cos copy of the coinage decree of about the same date (*ATL* II 63), and even, with the exception of its three-bar *sigmas*, with the Chalcis decree of 446–5 (*IG* I^2 39). If one compares it with the Tribute Lists, our most safely dated inscriptions, this becomes clear. Compared to *ATL* List 5, presumably cut in the summer of 449, it has rounded, more modern forms of *beta* and *rho*, and it uses the *phi* with protruding crossbar which does not appear on the lists until 451. The vertical *nu* suggests the forties. A date of 457 would give this inscription the first Ionic *eta* in a public inscription in Attic by twelve years.[1]

A date of 457, then, seems epigraphically difficult to accept. There is, however, another occasion on which the relations between Athens and Aegina required regulation. It is generally recognised that the complaints of the Aeginetans in Thuc. I 67. 2 that they are not αὐτόνομοι κατὰ τὰς σπονδὰς imply that there was a clause specifically about Aegina in the Thirty Years' Peace. It may be conjectured that it ran something like Αἰγινήτας δὲ αὐτονόμους εἶναι, φέροντας τὸν φόρον ὃν ἂν πείθωσιν Ἀθηναίους.[3] There would be the more point in this clause, if we accept the strong arguments put forward in *ATL* III 38–9 for complete non-payment of tribute by Aegina in 447 and 446. The terms of the peace put an end to Aeginetan hopes that their subjection of 457 was only temporary. They also imposed on Athens the need to make a peacetime arrangement for her relations with Aegina. I suggest that our fragment is all that remains of the arrangements, and is to be dated to the summer of 445.

It may be thought that this is as unsound epigraphically as the early date. The document does not look as late as 445. I suspect that the objection rests unduly on the three-bar *sigmas* and on false standards of comparison. We cannot draw rigid lines in ages of transition. There are always conservatives and progressives, artists and workmen. Inscriptions looking forward and inscriptions looking back may be contemporary. Raubitschek has well analysed the two schools in the earlier period of transition, 510–490.[4] The same processes are at work in our period, and while sculptors' workshops produced lettering of the new era like that on *IG* I^2 394, now convincingly dated by him in 456,[5] the normal run of the trade lagged behind; not much, indeed, but still behind, and produced less fashionable work for, to be practical, a good deal less money.

There is certainly a faint odour of a cheap job about our inscription. An Ionic *eta* might happen to anyone,[6] though if we accept an Ionic *gamma* in line 9, it would be less excusable.[7] But the first five letters down of the ninth column are extremely badly set, the chequer is closely drawn, as if to cram a great deal into a small stone, and the stone was not only small but faulty. Even squeeze and photograph make it clear that the reason for the uninscribed space in line 4 is not to be found in the 'normal epigraphic manner of spacing before an important word',[8] but in a flaw in the stone which begins in these two spaces and runs diagonally to hinder our reading of several letters and cause the second uninscribed space in line 8 and the closing up away from its own space of the last letter of αἴτιοι in line 9. If one views the craftsmanship in this light, 445 is by no means an improbable date.

---

[1] The earliest precisely datable is *IG* I^2 39. 77 of 445.

[2] No note 2.

[3] *ATL* III 303.

[4] *Dedications* 448–451.

[5] *Id.*, D 173.

[6] See note 1 and cf. *IG* I^2 34. 2; 57. 21, 41, 52; 108. 35; 952. 30.

[7] *IG* I^2 57. 51 seems the only really respectable example.

[8] Nease, *op. cit.*

The explanation of the workmanship is not difficult to find. Except in very special circumstances, the allies of Athens paid for the erection of decrees about themselves. Those responsible had a strong interest in getting the job done as cheaply as possible, and we can now assemble several cases. Schweigert pointed this out in the case of the decree for Eretria,[9] and the chaotic workmanship of the Kolophon decree [10] is the outstanding example. Aegina seems to have been more lavish than Kolophon, but, not surprisingly in view of her disappointment, disinclined to get the job done as well as possible.

That Aegina paid for the erection of the stone seems probable in any case. It may even be recorded in our fragment. Hondius rightly followed Meisterhans' warning against articles with plural ethnics,[11] and read τοῖς Αἰγι[νετõν in l. 2. He was then, however, tempted to restore χσυμμάχοις before τοῖς, but this, like his suggestion of χσύμμαχοι in l. 5, is surely not right. After the capitulation of 457 and the peace of 445, the only allies that Aegina had were the members of the Athenian Empire. No others could be recognised in an Athenian inscription. A more satisfactory restoration, which happens to fit the traces in l. 1, would be:

[ἀναγράφσαι τὸν γραμματέα τε̃ς β]
[ολε̃ς ἐστέλ]ε̣[ι] λ̣[ιθίνει καὶ καταθε̃ναι ἐμ πόλει τέ]
[λεσι τ]οῖς Αἰγι[νετõν κτλ.]

This, however, ought to be a concluding formula, and yet the inscription goes on. There would be no room in l. 2 for an amendment formula and yet more provisions appear. But the Sunium decree (*SEG* X 11. 12 ff.) is perhaps an adequate parallel for careless drafting in this period.

The structure of the inscription presents more difficulties. One would like to preserve the distinction between a treaty, which is private to neither state and has no validity until the oaths are sworn, and decrees of a state which order the doing of things which are in its power, either that the treaty shall be accepted [12] or that various executive measures be taken to implement it, including the taking of the oaths. In all known Attic inscriptions down to 431 which deal with imperial or foreign relations, the relations which are to obtain for the future are known to us only from the oaths. That another state should not attack Athens was not a thing that the Athenian people could pass a decree about, though it could pass one accepting an alliance including this as a term, and even quoting the terms introduced by τάσδε or κατὰ τάδε. There are apparent exceptions where the treaty does not seem to be properly incorporated into the decree.[13] One of these, the Argive alliance of 417–6 (*SEG* X 104), is too fragmentary at the critical point to be discussed. (It even appears, illusorily, I suspect, to lack a proposer.) But the Halieis decree [14] seems to have the people of Athens decreeing that Halieis should provide harbourage:

Λάχες ε-
ἶπε· χσυνθέκα[ς καὶ χσυμμαχίαν καὶ hόρκο]ς ε̃ναι ἀδόλο-
ς Ἀθεναίοι[ς καὶ hαλιεῦσιν· σταθμὸν δὲ πα]ρέχ[ε]ν hαλι-
ᾶς Ἀθεναί[οις ταῖς ναυσὶν κτλ.]

---

[9] *ATL* II, D 16, *Hesperia* VI (1937), 319. I do not think it is necessary to suppose, with S., that the workman was an Eretrian. Native workmen are hardly to be assumed in the cases of Phaselis and Aphytis. The workman may have been any Ionian, or he may have been using a copy made by the Eretrian delegation.

[10] *IG* I^2 14/15 (*SEG* X 17 and *ATL* II, D 15).

[11] GAI^3 120 n. 12. There are ten restorations contravening this canon in *SEG* X. Only one of them (69. 3) is in any way secure.

[12] Cf. *IG* I^2 52. 17; 116. 29; 117. 4 ff.; *AJP* LXIX (1948), 312.

[13] By 'properly' I mean the perfectly clear situation existing in *IG* I^2 116.

[14] *SEG* X 80. See Meritt, *Hesperia* XIV (1945), 97–105, where the transaction is lucidly explained.

It seems to me, however, that the restoration of these lines has not followed the language of the oath in ll. 21 ff. quite closely enough. What we require to improve the parallelism of the language and preserve international law is this:

> Λάχες ε-
> ἶπε· χσυνθέκα[ς καὶ χσυμμαχίαν καὶ hόρκο]ς ἔναι ἀδόλο-
> ς Ἀθεναίοι[ς καὶ hαλιεῦσιν κατὰ τάδε· *v* πα]ρέχ[ε]ν hαλι-
> ᾶς Ἀθεναί[οις ναύσταθμον κτλ.][15]

We are now better equipped to deal with our inscription. Hondius thought it a treaty, and lines 7–10 certainly seem to be part of one. But, with one doubtful exception,[16] a stone merely containing a treaty is unexampled before the Peace of Nikias (though of course we do not know how the Peace of Kallias and the Thirty Years' Peace were inscribed); the fact that the stone contains the words τὰ χσυνκείμενα suggests that at least part of it was not itself the treaty, and l. 6 seems to refer to the Aeginetans in a detached manner, which might be part of an Attic decree but not part of a treaty with Aegina. I suggest tentatively that the solution is that ll. 7–10 are part of the treaty and are being quoted in an Attic decree. I restore, *exempli gratia*, as follows:

> [κατὰ τὰ ὅ- *or* ὑπάρχο-]
> ντα χσυνκείμε[να καὶ κατὰ τὰς νῦν χσυνθέκας hα-]
> ί εἰσιν αὐτοῖς π[ρὸς Ἀθεναίος κατὰ τάδε· Μεδ' ἐπὶ]
> βλάβει τε̃ι Ἀθεν[αίον κτλ.]

A passage from the treaty is being quoted to justify some executive action, probably connected with the word φυλακέ. I find all previous treatments of this word unacceptable. Its basic meaning is abstract, something like 'watch', 'defence', or frequently, 'blockade', and in spite of the use of it in the concrete by Herodotus and Thucydides,[17] this is the only meaning it has in inscriptions. A garrison in official language is a φρουρά, composed of φρουροί, and its commander is a φρούραρχος. He appears in Erythrae,[18] his troops appear in Miletus,[19] and when the allies join the second Athenian confederacy, they do it on condition that they do not receive a φρουρά.[20] The φρούραρχος, however, must καταστε̃σαι τὲν δέοσαν φυλακὲν πανταχο̃ Ἐρυθρᾶσι,[21] that is to say, he maintains watch, just as the generals are to do over Euboea,[22] and surely l. 85 of the Miletus decree must be restored and interpreted in the same way: ἐπιμελέσθο δὲ h]ε βολὲ [τε̃ς] φυλακε̃ς.[23, 24]

Our inscription, too, will run something like καταστε̃σαι τὲν βολὲ]|ν τὲμ φυλακὲ[ν ? hὲ ἂν ἀρίστε ε̃ι, but whether this watch is to preserve unfortified Aegina from enemies and marauders or Athens from Aeginetan plots we have no means of telling. Nor have we any evidence on the question whether or not this watch was maintained by a garrison on the island.

---

[15] I would be reluctant to assume a vacant letter-space, were it not in accord with the practice of the inscription. See ll. 20 and 34.

[16] *IG* I² 53, as restored in *AJP* LXVIII (1947), 312 ff. (*SEG* X 46). See n. 27.

[17] Hdt. II 30. 3, and, *e.g.* Thuc. III 106. I would be prepared to argue for an abstract sense or a change to φύλακας in many Thucydides passages where the word appears to be used concretely.

[18] *ATL* II, D 10. 14.

[19] *SEG* X 14 (*ATL* II, D 11), certainly in l. 77, but they were probably also referred to in l. 11. I find Oliver's suggestion (*TAPA* LXVI (1935), 190) that l. 11 refers to military assistance that Miletus was to give to Athens, quite out of place in this part of the decree, which deals with the organisation of the mission that was to regulate the affairs of Miletus.

[20] *IG* II² 43. 22.

[21] *ATL* II, D 10. 38.

[22] *IG* I² 39. 76.

[23] *ATL* II, D 11 (*SEG* X 14). φύλακες, the accentuation of *ATL*, has now been corrected (*ATL* IV x).

[24] How Plut., *Solon* 15. 3 fits in with the history of the word is obscure. See Gomme's note on it (*Historical Commentary on Thucydides* I 385). Perhaps Plutarch's source was thinking of passages like Isocr. IV 107, φυλακῆς ἕνεκα τῶν χωρίων, though this refers to cleruchies. *Cf.* also *IG* I² 59. 13 for the verbal usage.

On the whole it seems more likely that there was no garrison. I find the suggestion in *ATL* III 320 that Aeginetan complaints were caused by a newly-arrived garrison more probable than Nease's suggestion that they were inspired by a garrison which had been in position for twenty-five years. The peace provided for the autonomy of Aegina. Autonomy is an elastic term, as Gomme points out,[25] but in this case it may not have been far from the truth. Whereas in all other agreements with members of the Empire the emphasis is on loyalty to Athens and the League, here the formulae which seem to have been employed in ll. 7–10 are those appropriate to treaties with independent states like Halieis [26] and the unknown state of I^2 53.[27]

The only other evidence for the character of the settlement is the tribute-assessment of Aegina. Welter [28] finds a payment of thirty talents deliberately punitive, a capital levy designed to destroy the resources built up by a hundred years of trade, which could not possibly be met out of income. I find this unconvincing. Clearly Aegina lost trade steadily to Athens throughout the fifth century, and the archaeological evidence would seem to confirm that the state was not as prosperous in the forties as in the nineties, but I find no evidence to show that revenue from trade ever stopped dead.[29] Even twenty years or so after the expulsion an Aeginetan exile in Naucratis has still big enough connections to endear himself at Rhodes.[30] It is possible that by 432 the tribute was becoming a burden, but that is no evidence for the intentions of 445.

I add some notes on possible restorations.

Lines 2–3, κακοργίαι. I can suggest no restoration of this which has not a distorted sentence structure. I know of no fifth-century parallel to the noun in the sense of 'doing damage'. But Hondius is right to compare the use of κακουργεῖν in Thuc. II 32. Any reference to the wickedness of the Aeginetans would be stylistically out of place.

Line 4. I do not think that there is a parallel for Hondius' restoration Αἰγινέτας δὲ μὲ παραβαίνε] | ν τὰ χσυνκείμενα. The only place where the contravention of a treaty can be contemplated is in the oath where divine sanctions can be invoked against it.

Line 9. Klaffenbach suggests ἐὰν δὲ αἴτιοι γίγ[νονται τότο, Ἀθεναίος στρ]ατεύεσθαι ἐπὶ τ[ὸς. Again, I know no parallels to this threatening language. There may be a reference to those who were guilty of Aegina's opposition to Athens and later non-payment of tribute. Cf. *ATL* II, D 22. 12, as restored in accordance with Antiphon περὶ τοῦ Ἡρῴδου φόνου 77, and Thuc. IV 130. 7.

Line 11. There seems no possibility of judging between χσυνθέκες, φυλακε͂ς, δίκες, ἐπάναγκες, and future participles of verbs in -αω and -εω.

III. *ATL* LIST 9

A great deal of attention has been paid to the top of the reverse of the first *stele* of the quota lists. While the authors of *ATL* and *SEG* V have maintained that a considerable area remained uninscribed, Gomme[1] has suggested that we have lost half another list and Dow[2] has wished to fill the gap either with a decree or another short list. I do not wish to suggest a radical alteration in the determinations of *ATL*, but I have long suspected that they should be modified in detail, and an examination of the stone has strengthened this suspicion.

---

[25] *Op. cit.* I 384. [26] *SEG* X 80.

[27] See *AJP* LXVIII (1947), 312 ff. There is really not enough of this on which to base a discussion, but I find it extremely hard to accept Meritt's view that it deals with a defeated ally. For such states it was not a question of a treaty or χσυνθε͂και but of χσυγγραφαί, *i.e.* an imposed arrangement, and it seems to me that an undertaking by the other state to keep its land free from pirates and enemies of Athens must mean that Athens has not direct control herself. If the stone belongs to the twenties, which I do not think the case, it must be a treaty with Methymna, the one member of the Empire besides Chios to which this technical equality was still appropriate and whose ethnic fits neatly into ll. 2–3 and 5.

[28] *Aigina* (Berlin, 1938), 41.

[29] The real Athenian blow to Aeginetan commercial supremacy lay in forbidding her coinage. This seems to stop dead in 457. See Robinson, *Hesperia*, Suppl. VIII (1949), 329.

[30] *SIG*^{3} 110.

It may be recalled that it was only in 1926 that the existence of the uninscribed space was discovered. Early editions allowed what has now become List 9 to run upwards indefinitely, as it did as late as *IG* I^2 199. One of the earliest changes introduced by West and Meritt[3] was to read, instead of the traditional EΛ, *i.e.* εγ, the third and fourth letters of an unidentified Thracian name, EN, the beginning of ἐνάτες in the prescript of the list. It was not until 1939 that, in the first volume of *ATL*,[4] part of the *alpha* of ἀρχε͂ς was detected and the prescript took its present form:

[ἐπὶ τε͂ς] ἀ̣[ρχε͂ς τε͂ς] ἐν[άτες, hε͂ι - - - - - - - - - - ἐγραμμάτευε - - - - -]

It seems to me that this identification of the prescript has been mistaken, and that we cannot in fact determine with certainty the exact sizes of List 9 and the available space above it.

Before we turn to a detailed study of the letters in question, let us look more generally at List 9 as it is presented to us in *ATL*. It contains not more than 154 names. It is hard to make an exact comparison with List 8, which contains so many part payments and may have contained more, and seems to have had between 162 and 186 names. The fairer parallel is with Lists 10–11, the others in the same assessment period. I count in List 10 not more than 159 names, in List 11 not more than 164 names. In List 12, the first of the next period, there were probably exactly 165 names. It seems then that List 9 is a trifle short, though by not more than about ten names. But even this is not easy to explain on the general theory of *ATL*, by which the Decree of Kleinias (D 7) falls between Lists 7 and 8 and is followed by the drastic tightening of tribute-collection in List 8, which should then be followed immediately by List 9. If with Accame[5] we slight the influence of the Decree of Kleinias and place the missing year before List 9, the wonder is not that List 9 is a little short, but that it is so long, and in fact I regard the peaceful condition of List 9 as a strong argument against Accame's theory.

Let us close the limits of our examination to the Thracian district. List 8 reflects great activity here, particularly in the Strymon region,[6] and at least thirty-nine cities paid once or more in this year. In List 10 there were at least thirty-seven Thracian cities, in List 11 at least thirty-six, and it is therefore unlikely that there was any serious absenteeism in these years. List 9 bears this out. The Thracian cities are concentrated in what might, anachronistically, be called a panel, and it is well-preserved. *ATL* restores forty-one names with virtual certainty. There can be very little missing, but there is something. Various cities appear which were not present in previous years or at least are not preserved as having paid—Akanthos, Argilos—, possibly the Othorioi, Olynthos, probably Potidaia, Skiathos, but to counterbalance these, there are five absentees not so far assigned to List 9. The Erodioi do not present any difficulty, since they never appear again, nor do the Chedrolioi, whose absence for some years can be inferred from the fact that, when they reappear in the thirties, they are under the ἄτακτοι and πόλεις αὐταὶ ταξάμεναι rubrics. One might even discount Berga, which does not appear again until List 20, although this is a dangerous procedure in view of the fragmentary condition of our Thracian evidence for Lists 14–19. But the really pressing difficulties are the absence of

---

[1] *CR* LIV (1940), 65–67.

[2] *CPh* XXXVII (1942), 371–384; XXXVIII (1943), 20–27.

[3] *HarvSt* XXXVII 75–76.

[4] P. 15.

[5] *RivFil* XVI N.S. (1938), 411–414; *ibid.*, XXX N.S. (1952), 223–237.

[6] Well analysed in *ATL* III 60–61.

Stolos, paying in Lists 1, 2, 3, 4, 5, 7, 8, 10, 11, 12, 13, but not yet restored in List 9, and above all of Abdera, intimately concerned with the operations of the previous year and paying its 15 talents again in List 10. This is really quite inexplicable. It is not on all fours with its disappearance in List 12 from a full panel, for there its neighbours Dikaia and Thasos go too, and here Dikaia is present and Thasos plausibly restored. I find it hardly credible that it and its 15 talents should be absent in a year when Athenian interest in and control of Thrace is at its height. But where are it and Stolos to go? They might displace Carian names downwards in Column III, but this would clash with the complicated but convincing arguments by which this column has been reconstructed. They might go to the foot of Column I, but this would rather disturb the panel-like grouping. They certainly cannot go at the bottom of Column II, for the bottom of the list is fixed. They may go somewhere else altogether, but in order to keep all the Thracian names together it would be attractive to suppose that they might go to the top, the only place where the ten extra names the list seems to be short of can go.

There seems then to be a case for an upward extension of the list by one or two lines. There is no objection from the point of view of space. Indeed, we have an embarrassing amount of space. The only obstacle is the West–Meritt interpretation of the traces above Μενδα[ῖοι] in Column II, and this seems to me to be extremely doubtful. I present here the results of an examination made with the co-operation of Mr. W. G. Forrest. For these the stone is the only full control, for the surface is too worn for a squeeze to be of much value, and its present position makes it impossible to take a photograph which might improve on that in *ATL*, though this will provide a partial control.[7]

To begin with, we think that the supposed *alpha* of ἀρχε͂ς is to be disregarded completely. It seems no more than an accidental nick on a much-worn stone. In the space above the *nu* of Μενδαῖοι we detect no certain chisel-marks, and as the weathering of the stone led us at various times to see parts of *epsilon*, *omikron* and *rho*, we doubt whether anything should be read at all. The next letter certainly appears at first glance to be a *nu*, but closer examination suggests that the supposed third stroke would be sloped much farther than other examples of *nu* in the list and that it is in fact not a continuous chisel-stroke, but an intermittent line caused by weathering. West and Meritt claim that the letter is perceptibly larger than the letters below. Measurement is difficult because weathering has distorted all letters on this part of the stone, but the two measurable strokes appear to have been cut with an 11-mm. chisel, as were all three strokes of *nu* in the line below. The main list was cut with three chisels of 11, 7, and 5 mm. I think it may be stated dogmatically that the strokes of *nu* and *gamma* are always cut with the largest chisel. But the group of chisels used to cut the prescripts on the first *stele* always includes one chisel larger than the largest used to cut the text. I offer the following comparative table:

List	*Prescript*	*Text*	*List*	*Prescript*	*Text*
1[8]	12, 10, 8, 6	10, 8, 6, 4	7	15, 9, 6	10·5, 8, 6
2	(?) 12, 7	(?) 10, 7, 5	8	13, (?), 6	11, 8, 5
3	15, 10, 8	10, 5	10	11, 9, 7	9, 7, 5
4	15, 9, 7	10, 7, 5	11	13, 9, 6	9, 6, 4
5	20, 14, 12, 6·5	10, 8, 5			

To turn from size to spacing: if there is a letter in the first space and *nu* is read in the second space, the horizontal spacing of the two letters is about 0·016 m., measured from centre to centre, as against the horizontal chequer of the main inscription, which is 0·0136 m. If we read *gamma* in the second space, the spacing would appear to correspond exactly with the line below. Though the reading of *nu* gives the West–Meritt prescript a wider horizontal spacing than the main text, the difference is not nearly as much as is normal on the first *stele*. Again I give the comparative figures.

---

[7] *ATL* I 16, fig. 13. The drawing on Plate IX should be disregarded; it is more of an interpretation than a facsimile.

[8] Since it is virtually impossible to measure Lists 1–2 in their present position, all measurements for them are taken from squeezes and should, particularly for List 2, be treated with reserve.

List	*Prescript*	*Text*	*List*	*Prescript*	*Text*
1	0·0183	0·0130	7	0·0268	0·0176
2	0·0210	0·0113	8	0·0172	0·0134
3	0·0202	0·013	10	0·0222	0·0146
4	0·0183	0·0154	11	0·0194	0·013
5	0·0217	0·0171			

If, however, we accept this figure and the West-Meritt readings, the supposed *alpha* of the prescript must again be disregarded. Its centre will lie 0·132 m. from the left-hand edge, which can be reconciled with our figure for the horizontal spacing by assuming there was a margin of about 30 mm., which is reasonable. On the other hand, its centre lies 0·0196 m. from the centre of the supposed *epsilon*, which should mean on the inferred spacing that there were eleven letters between them, whereas we only wish to restore seven.

To turn to vertical spacing: from the centre of the *gamma* or *nu* to the centre of the *nu* below is about 0·016 m., which compares well with the vertical spacing of the whole text, which I calculate as 0·0164 m. To put it more strikingly, the blank space between the bottom of the prescript and the top of the line below is 3 mm. The average space left between the certain names is the same. Again the comparative material:

List	*Between text and prescript*	*In text*	*List*	*Between text and prescript*	*In text*
1	23	5	7	10	7
2	7	5	8	14	5–8
3	11	6	10	2	7
4	8	5	11	10	7
5	8	7			

This time the comparative material suggests considerable diversity of practice and the possibility of a coincidence. It is odd that the spacing should be so narrow with the whole face of the *stele* available, but it is not impossible.

Taken together the evidence suggests a distinct possibility that the letters are not part of a prescript. The slight historical difficulties caused by assuming the existence of a prescript have been examined. At present I feel fairly certain that the critical letter is the fourth letter of a Thracian ethnic, that it is a *gamma* or, just possibly, an *alpha* with an eroded cross-bar. I see no alternative to the reading [Βερ]γ[αῖοι]. Three other Thracian towns may now be read at the top of Columns II and III. Two of them should be Stolos and Abdera.

One more fact remains to be noticed. Early editors read an *omikron* above the *iota* of what is now [hέσ]σιοι in Col. I, which is now no longer to be seen. With the finding of the prescript this reading was abandoned as illusory. This may have been too hasty.

Both from the general size of the list and from the Thracian panel it is improbable that more than two extra lines should be added. The prescript should immediately precede them. If we allot their normal spacing to these two lines and to the prescript an average spacing as present in other one-line prescripts, the space at the top unaccounted for is reduced to about 242 mm. This is still considerable, but I shall make no attempt to fill it.

My conclusions are not certain. The prescript may exist; the missing names may be fitted in elsewhere. But there is sufficient doubt in my mind to make me wish to communicate it to others. I know that the last thing that the authors of *ATL* wish is that their determinations should be accepted without question, and I put this question now in the hope of a more authoritative treatment from them.

IV. *IG* I^2 55

The text of this decree as it stands in the *editio minor* is an epigraphical impossibility. If fragment *b* is placed directly below fragment *a* as it stands, there is a minimum lacuna of three lines to be taken into account, as well as the two letters EI, which are clear at the top of *b* but ignored in the *Corpus* publication. If the two fragments touch at all, they touch with the first letters of *b* in the same lines as the last of *a*. This gives a good line of fracture, but both stones are so broken at the point of contact that the join cannot be considered certain. Since, then, fragment *a*, which has no edge of its own, cannot be placed in any certain relation to the right-hand edge, we must admit that we do not know exactly where the short lines 1–3 pass into the long lines 4 ff.

Wilhelm's restorations published in the *editio minor* are incomplete, and I attempt here a complete restoration of fragment *b* in accordance with the usual formulae. It may be as well to note that the inscription is not entirely Ionic, as is generally thought, for the practice regarding the use of *eta* is quite inconsistent. The *Corpus* reads ἀφ' ἧς in A l. 7, but the top and bottom bars of *epsilon* are quite clear on the stone. κωλύει in A l. 10 must be a subjunctive, and I have restored all subjunctives with the same spelling.

B [. . . . . 12 . . . . . . ἐὰν δέ τις δήσ]ει [ἢ ἀγάγει]
[ἢ χρήματα ἀφέλει 'Αριστόνο]ν, δί[κας λαγχ-]
[άνεν πρὸς τὸν πολέμαρχον ἄ]νευ [πρυτανε-]
[ίων· ἐπιμελέσθων δὲ αὐτõ ἡ β]ολὴ [καὶ οἱ στ-]
[ρατηγοὶ ὅπως ἂν μὴ ἀδικῆτα]ι· 'Αρ[ιστόνωι]
[δέ, ἐάν το δέηται, ἐξέστω ἀπο]γράψ[ασθαι π-]
[ρὸς τὸς πρυτάνεις· προσάγε]ν δὲ [πρὸς τὴν]
[βολὴν καὶ ἐς τὸν δῆμον δέκ]α ἡμε[ρῶν ἢ εὐθ-]
[ύνεσθαι ἕκαστον πρύτανι]ν χιλ[ίαισιν δ-]
[ραχμῆσι ἑκάστης τῆς ἡμέρ]ας ἕω[ς ἂν ἐσάγ-]
[ωσι, ἐὰν μή τι τῶν δημοσίων] κωλύ[ει· καὶ ἐά-]
[ν τις 'Αριστόνον ἀποκτείν]ει ἐ[ν τῶν πόλε-]
[ων ὧν 'Αθηναῖοι ἄρχοσιν ἐν τῆι] ύ̣[περορία-]
[ι κτλ.]

V. *IG* I^2 101

Although Kirchoff had already observed that fragment *b* of this decree had a clear left margin, this physical feature was missed by Hiller. It even seems reasonably certain that the two fragments join. Although they do not make a perfect fit, the surfaces are so consistent over so large an area that I am confident they must join, and Prof. Dinsmoor and Dr. Mitsos, who were kind enough to check the point for me, agree. The consistency is particularly clear at the back, but it was not possible to photograph the back for fear of damage to the battered surface of fragment *b*.

The decree lacks a commentary, and of course the best explanation of it is provided by Thucydides VIII 21. After some hesitation I have decided that the best way in which I can show what meaning I attach to it is to make a tentative restoration which I hope will enlighten more than it will mislead. I have assumed that l. 1 was laid out in exact symmetry and that the length of the lines was therefore ninety-eight letters. Previous editors have read more than is now visible on fragment *b*, but since I cannot always reconcile their versions with the stone, I have thought it best not to make any attempt to incorporate them.

ΣΤ. 98

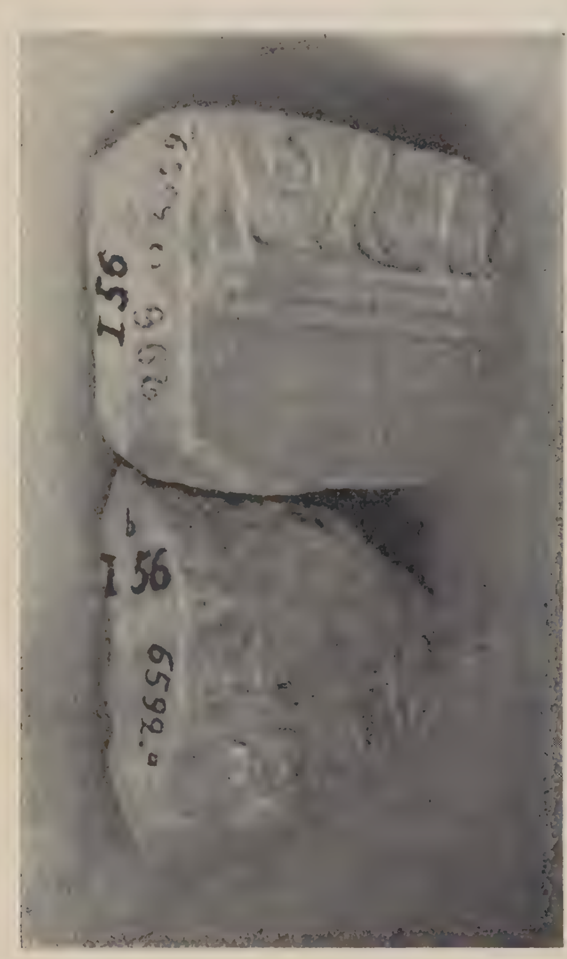
Θε[οί]

ἔδοχσεν τε̃ι βολε̃ι καὶ τõι δέμοι, ᾽Ακαμαντὶς ἐπρυ[τάνευεν, - - - - - - ἐγραμμάτευεν, - - - - - - ἐπεστάτει, - - ∔ - - - - εἶπε· τõ]
ι μὲν δέμοι τõι Σαμίον ἐπαινέσαι ὅτι σφᾶς αὐτὸς̣ [ἀπελευθέροσαν, τὲν ὀλιγαρχίαν τὲν αὐτοῖς ὑπάρχοσαν καταλύοντες, καὶ Σ-]
αμίον τὸς ἐπάγοντας Πελοποννεσίος ἐπὶ Σάμον κ[αὶ τὲν ᾽Ιονίαν ἐχσέβαλον. περὶ δὲ τõν χρεμάτον τõν φυγόντον, ἀπομισθοσάν-]
5 τον μὲν τὸν ἀγρὸν τὸν Κλεομέδεος τὸν ἐγ Κλαμαδõ[ν, ὅσπερ ἐψέφισται. . . . . 23 . . . ., τὰ δὲ χρέματα ᾽Αθεναίοις ἀ-]
ποδιδόντον Σάμιοι τὰ γιγνόμενα ἐχς αὐτõ ἀπάγ̣[οντες ᾽Αθέναζε κατ᾽ ἔτος ἐς τὰ Διονύσια τὰ ἐν ἄστει. ἐὰν δέ τινον καταγνõι ὁ δ-]
ε̃μος ὁ Σαμίον θάνατον ἒ φυγὲν ἒ δέμευσιν χρεμ̣[άτον, κύριον ἔστο. . . . . 28 . . . . ἐχσέστο δὲ καὶ τõι δέμο-]
[ι] τõι ᾽Αθεναίον φυγὲν αὐτõν καὶ θάνατον καὶ̣ [δέμευσιν χρεμάτον καταγιγνόσκειν, ἐὰν δέει. ὁπόσος δὲ αἰχμαλότος κατέχοσι-]
[ν] Σάμιοι ἀποπεμφσάντον ᾽Αθέναζε κ̣α̣ὶ̣ παρα[δόντον . . . . . . 58 . . . . .]
10 [. . 5 . . ἐ]μ πόλει τριάκοντα ἑμερõν π[- -]

Lacuna of three lines

[. . . . 8 . . . α]ὐτοὶ καὶ [. 78 . . . . ᾽Αθε-]
15 [ναίο]ις κ[α]ὶ Σαμίοις. περὶ δὲ [. . . . . 77 . . . .]
[. .]οι, ἐπειδὲ ἀνέρ ἐστι ἀ̣γ̣α̣θὸς̣ [περὶ τὸν δε̃μον τὸν ᾽Αθεναίον καὶ τὸν Σαμίον καὶ νῦν καὶ ἐν τõι ἔμπροσθεν χρόνοι. καὶ ὅπος ἂν μ-]
[εδ]ἐ̣ν̣ βλάπτοντ̣[αι ᾽Α]θ̣ε̣ναῖοι μ[εδ]ὲ̣ Σ̣ά[μιοι καὶ μὲ καταλύεται ὁ πόλεμος, καταστε̃σαι τὸς στρατεγὸς τὲν φυλακὲν πανταχõ ἒ ἀρ-]
[ίστε ἂ]ν̣ δοκε̃ι τ̣õι [δέ]μοι τõι Σαμίο̣ν̣ [καὶ τοῖς στρατεγοῖς - - - - - - - - - - -]
[. . . 7 . . .]νεται περ̣[ὶ] τε̃ς βασά[ν]ο κα̣[ὶ -]
20 [. . . 6 . .]αι, ὁπόσοι δ[έ ἐ]σι ἐχσαμίο[ν - - - - - - - - - - - - - - - - - -]
[. . . 6 . .]ις καθάπερ [ἂν] Σάμιοι δέο[νται - - - - - - - - - - - - - - - -]
[. . . 7 . . .]τοσ̣τ̣ . σο[. . . . . 13 . . . .]σ̣κ̣ο̣[. . . . .]
[. . . . . 24 . . . .]λο . τα[- - - - - - - - - - - - - - - - - - - -]
[. . . . . 23 . . . . κ]αὶ ἐχθρ[- - - - - - - - - - - - - - - - - -]
25 [- -]
26 [. . . 6 . .]ονεο[; 27–28 nothing to be read ; 29 [. . 8–9 . .]κ[.

The clues to sense which should be noted are these. There is a contrast between the present imperative in l. 6, which I take to represent a regular repeated payment, and the aorist imperative in l. 9, which indicates that something specific is to be sent on this occasion only. The order of l. 9 indicates, I think, that Σάμιοι comes at the end of a relative clause, and I can think of nothing other than prisoners which would be appropriate. The restorations in ll. 6–7 are dictated by the need to provide suitable contexts for ἕ and καί. Although Samos is now autonomous, the Athenians reserve the right to deal with those of the exiles who may fall into their hands. For ἐχσαμίον, see Tod, *AJP* LXVII (1946), 333.



IG I^2 101

VI. THE EPISTATES OF THE PROEDROI

No new inscription has come to light to prove or disprove Glotz' view [1] that the institution of the *proedroi*, composed of representatives from the nine tribes not in prytany to replace the *prytaneis* in the presidency of the Council and the Assembly, took place in 378–7. It has, however, been widely accepted.[2] I do not think that there is yet enough evidence to come to a decision, and feel that it may be helpful to collect the data again, with textual revisions in certain important cases.

No one doubts that the last presiding *prytanis* certainly known can be seen in 403–2 (*IG* II^2

---

[1] *REG* XXXIV (1921), 1 ff.

[2] Notably by Dinsmoor, *AJA* XXXVI (1932), 156–160, the most comprehensive survey of dating problems in the first quarter of the century.

1, 2; *Hesperia* X 288, no. 78) or that the first certain ἐπιστάτης τῶν προέδρων appears in the seventh prytany of 378–7 (II^2 43), or that the first datable appearance of the phrase τῶν προέδρων ἐπεψήφιζεν is slightly later in the same year (II^2 44). The upper limit is infringed only by the present restoration of *Hesperia* XIV (1945), 132, no. 17 (*SEG* X 140). There, if the *epistates* is from Hippothontis, the tribe in prytany must be Hippothontis. Room must be made for it in ll. 1–2. Meritt has not suggested that his twenty-eight-letter line is more than tentative, but it can even now be retained on the assumption that the secretary's name was Αἰν̣[έας].

The lower limit is broken apparently by II^2 105 (369–8), which has been wrongly restored,[3] and by two more puzzling cases. The documents in Demosthenes XXIV have every appearance of being genuine, and in their repeated insistence that Pandionis is the first prytany (§§ 27, 39, 71), they confirm Kahle's dating of the speech in 354–3 [4] against Dionysius' date of 353–2.[5] For there is no evidence to contradict the assumption that Pandionis held the first prytany in 354–3,[6] whereas it almost certainly held the tenth in 353–2.[7] In 355–4, in any case an unlikely date, it seems to have held the fifth.[8] However, in Dem. XXIV 71 the demotic of the *epistates* is given as Μυρρινούσιος, that is, he comes from the tribe in prytany, and we are left with the choice of dismissing the documents as forged or supposing with Drerup [9] that Μυρρινούσιος is a mistake for ἐγ Μυρρινούττης, which is in Aigeis.

The last exception is not from Athens but from the cleruchy on Samos, and is slightly different, since it affects all the *proedroi*. Michel 832 (346–5) gives three complete boards of *proedroi*, two in the second prytany and one in the fifth. The one in the fifth is quite normal. Pandionis is in prytany, and the *proedroi* come from each of the other tribes. But although Kekropis is said to be in office in the second prytany, the two boards from that prytany both have representatives from Kekropis, while neither has representatives from Akamantis. It is fairly clear that Κεκροπίδος has been cut by mistake for Ἀκαμαντίδος in l. 9.

Let us now examine those inscriptions which may throw light on the institution in Athens between 403 and 378. They fall into five natural groups.

(1) There is one inscription which definitely shows agreement between the tribe of the *epistates* and the tribe in prytany.

II^2 50. Prytany Erechtheis (I), *epistates* Ἀγρυλῆθεν (I), secretary from Leontis (IV). The margin was miscalculated by Lolling, and one more letter must be added to each line.

ΣΤ. 28

- - - - - - - - - - - - - - - Σάμο *vacat*
[Ἔδοξεν τῆι βολῆι· Ἐρεχ]θηὶς ἐπρ[υτά-]
[*νευεν*, ... 13 . . . .] Παιονίδης [ἐ-]
[γραμμάτευεν, . . 6 . . . Ἀγ¦ρυλῆθε[*ν* ἐπ-]
[εστάτει, ... 9 . . . . εἶ̣πε· κτλ.

I do not understand what the decree is about, and see no objection to placing it before 403. Possible positions in the last decade of the century can be found in all years but 410–09, since I am not quite sure of Miss Haggard's reasons for restoring Ἐρεχθηὶς in I^2 117.[10]

---

[3] See below, no. XI.

[4] *De Demosthenis orationum And., Timocr., Aristocr. temporibus* 32–42.

[5] *Ad Amm.* I 4.

[6] Akamantis, then, remains the only possibility for the third and is to be restored in II^2 134. 1.

[7] II^2 140. 2. See Johnson, *CPh* IX (1914), 423. The fifth and seventh are outside possibilities.

[8] II^2 130. 3, but I have not seen the stone or a squeeze, and there is an unsolved mystery about the prytany-calendar of this year. Wilhelm's new restoration of II^2 131. 1 (*Attische Urkunden* V 133 ff.) is irreconcilable with the present restoration of II^2 133. 5.

[9] *Neue Jahrbücher*, Suppl. XXIV 255.

[10] *The Secretaries of the Athenian Boule* 22, 34.

No notes 11 and 12.

(2) Inscriptions where it is prosopographically probable that the *epistates* belongs to the tribe in prytany.

II² 3. Prytany Aiantis. The only other appearance of the *epistates*' name, Ἀπημαντοκλῆς, in Attica is on a gravestone of the right period (II² 7351), belonging apparently to a family of Τρικορύσιοι, that is, to Aiantis. The inscription seems certainly to be fifth century. There are no certain fourth-century inscriptions which charge the *poletai* with contracting for the stele, and I do not see what Athens has to do with men of Iasos in the early fourth century or indeed at any time after 412.

(3) Inscriptions which may point either way, because the demotic of the *epistates* is lost, because his name is so common that it may well belong to any tribe, or because the tribe in prytany is lost: II² 6–7 (*c.* 400), 145 (402–399), 12 (399–8), 13 (399–8), 16 (394–3), *GHI* 110 (*c.* 393), *Hesperia* VII 91, no. 11 (*c.* 390), II² 51 (*c.* 390), 28 (387–6), 60 (396–5, 388–7, 380–79, 377–6, 373–2 exhaust the list of possible dates), 26, 58 and 77 (undatable, may be fifth century), 63 (undatable).

Glotz supported his view statistically [13] with arguments from II² 31 and 36, where the *epistatai* are manifestly from Erechtheis and which he thought both belonged to the eighties. In 31. 2, which is certainly of 386–5, Ἐρεχθηίς is a possible restoration, but so are Κεκροπίς and Ἀντιοχίς, which gives only one chance in three. He strengthens his mathematical case by arguing from II² 36. This I think to be unsound, since its dating in 384–3, which he accepts, has been much disputed, and there has never been any reason to suppose, as he does, that only eight letters are available for the tribe in prytany.[14]

He has satisfactorily demonstrated the uncertainty of Kirchner's restorations in II² 76. We do not narrow the field much by supposing that Atene, a small deme, is unlikely to have had more than one secretary in the period and restoring Ναυσίας in II² 158. (This is possible, for the *stoichedon* is inexact, *iota* counting only half a space). From this we could only deduce that the archon had seven or eight letters in the genitive; there would still be eight possibilities before 378–7 and two after it, and it is hardly possible to say whether Philinos, the honorand of 76, came to Athens in that year as ambassador (II² 41. 25) because he was Athenian proxenos or that he became proxenos as a result of his embassy.

(4) Inscriptions where it is prosopographically probable that the *epistates* does not come from the tribe in prytany.

II² 17 (394–3). Tribe in prytany, Aigeis, *epistates* Ἀμειψίας. This is a very rare name, and the early fourth-century examples point to the deme Thorikos of Akamantis (*PA* 710, 711 (note the new reading in II² 6216), and Dow, *Prytaneis* no. 1. 70, a probable restoration, all seem to be the same man). We must now also note the ephebe of this name of 333–2 from Leontis (*Hesperia* IX 62, no. 8, col. III 8–9), and there is second-century evidence for the name in the case of another deme of Akamantis (*PA* 712), and first-century evidence for Leontis (II² 1944), but so far no evidence for Aigeis. This is a hazardous point and not to be overstressed. I put it for what it is worth. Weaker cases of a similar kind could be made for II² 6, 26, and 60, but as their dates are doubtful in any case, I have preferred to list them in class 3.

(5) Cases where disagreement is demonstrable.

Glotz' case [15] for assigning II² 42 to this class is, I think, sound, though he has omitted two of the possible demotics for the *epistates*. However, neither Θορίκιος (V) nor Κοπρεῖος (VIII) belong to any tribe which can be restored in prytany. If we could place II^2 42 before 43 with Kirchner [16] and Accame,[17] the certain evidence for the *proedroi* could be pushed back at least one prytany. I incline rather to the view of Ehrenberg [18] and Tod [19] that 42 falls between the passing and the inscribing of 43, but this is by no means certain.

---

[13] *Op. cit.* 6–8.

[14] I agree with Beloch, West, and Accame that it belongs to 376–5, and I believe it to have had a much longer line than current texts allow.

[15] *Op. cit.* 11. Twenty-eight letters for the line-length of ll. 1–3, which must be transferred to the lost first line, is a misprint for twenty-nine.

Glotz thought [20] that II^2 70 belonged to our class (3), but he did not know that Wilhelm [21] had identified the *epistates* with fair probability as a grandson of *PA* 15514 and that the *editio minor* had laid out the text incorrectly. The whole prescript needs revision. Velsen should have been followed in reading the last letter of l. 3 as a *gamma*, and was, I think, near the truth in the last but one, where an *eta* seems to have been cut over an original *alpha* or *lambda*. The critical letter of the tribal name in l. 2 can be read, and the suggestion that *stoichedon* was neglected in ll. 1–2 appears unfounded. I read:

> [Ἔδοξεν τῆι β]ολῆι κα[ὶ τῶι δή-]
> [μωι· Ἀκαμαν]τ̣ὶς ἐπρυτάνε[υε,]
> [. . . . 9 . . . .]ος Δημοφ[ί]λο Φηγ-
> [αιεὺς *or* ὅσιος ἐγραμ]μάτευε· Χ̣[αρ]μίδ-
> [ης Λαμπτρε]ὺς ἐπεστάτε[ι]· ο[.] κτλ.

Unfortunately the inscription is undatable.

Glotz [22] has established a disagreement in II^2 61–62, and there is an unexploited method of establishing the date, which would in any case be important for our knowledge of the career of Androtion. In 61.1 the last letters are clearly ΙΑΜ[23] and this must be the end of a dating by archon and prytany which will have occupied two more eighteen-letter lines. Ἐπὶ [name] ἄρχοντος, ἐπὶ τῆς Πανδιονίδος [numeral] πρυτανείας ἧ]ι Ἀμ|[εινίας κτλ. Calculation shows that no more than seven letters can be allowed for the archon's name in the genitive. We are restricted to 387–6, 385–4, 380–79, 377–6, 373–2 and 365–4. One might perhaps say that there is a five to three chance of the decree belonging before 378–7, but perhaps the western ethnics of the honorands point to 373–2.

II^2 152 is undatable, but there is no reason to place it before 378–7.[24] If Wilhelm's readings for II^2 157 are right, we have another disagreement, with an archon of nine letters in the genitive, and the chances are eleven to two in favour of it being earlier than 378–7, but I, at any rate, can hardly read one letter on the stone with certainty.

These arguments are inconclusive, and the practical result must, I think, be a suspension of judgement. It is possible that the reform is to be dated in 378–7; it is equally possible that it closely follows the return of the democracy.

VII. *IG* II^2 5

The restoration of this inscription in the *editio minor* appears to me to be inside out. It presents us with a proxenos named Theozotides, a name which is, as far as I know, unknown outside Attica, at the exact period when the Athenian orator Theozotides (*PA* 6913) was most prominent in public life. I suggest that Theozotides was proposing an amendment to provide additional protection for a family in whose interests he had already acted, and restore as follows (EM 6879; horizontal chequer, 0·0186 m., vertical chequer 0·0193 m.; the left margin appears to be due to a late cutting):

---

[16] *IG* II^2, *ad loc.*

[17] *La lega Ateniese del secolo IV a.C.* 44–45.

[18] *Hermes* LXIV (1929), 328.

[19] *GHI* II 59.

[20] *Op. cit.* 13, n. 1.

[21] *IG* II^2 i. ii, p. 657.

[22] *Op. cit.* 9.

[23] Glotz' restoration (9 n. 3) can therefore not stand.

[24] See below, no. XII.

c. 400 B.C. ΣΤ. 40.
Ρ - [- - - - -]
ΕΑΤΑΤΟΙ[- - - - - -]
Θεοζοτίδ[ης εἶπε· τὰ μὲν ἄλλα καθάπερ τῆι βολῆι, ἐπ-]
ιμελεῖσθα̣[ι δὲ αὐτῶν τοὺς στρατηγοὺς καὶ τοὺς πρ-]
υτάνες καὶ [τὴν βολὴν τὴν ἀεὶ βολεύουσαν ὅπως ἂν μ-]
ἢ̣ ἀδικῶνται [ὑφ' ἑνὸς καὶ πρόσοδον εἶναι αὐτοῖς πρ-]
ὸς τὴν βολὴν [καὶ ἐς τὸν δῆμον, ἐάν το δέωνται. δίκας]
δὲ αὐτοῖς κα[ὶ τἆλλα ἔναι ἃ ἐψήφισται τοῖς εὐεργέ-]
ταις. τὸ δὲ ψή[φισμα τόδε καὶ τὸ πρότερον ἀναγεγρα-]
μένον τὸ ἕτ[ερον ὃ περὶ τῆς π̣ροξενίας τῆς . . . 6 . . .]
ου εἶπε Θεο[ζοτίδης ἀναγράψαντα τὸν γραμματέα τ-]
ῆς βολῆς ἐ[ν στήληι λιθίνηι καταθεῖναι ἐμ πόλει, τ-]
ὸς δὲ πωλη[τὰς ἀπομισθῶσαι τὸ δὲ ἀργύριον παρέχε-]
[ν τ]ὸ̣ς [ταμίας - - - - - - - - - - - - - -]

VIII. *IG* II^2 9

This is a trivial enough fragment and is, moreover, lost, but it has assumed a certain amount of importance, because it has been brought into association with the problems of restoration and reconstruction of II^2 10. Miss Hereward, indeed, in her new reconstruction [1] of that stele, with which I for the most part agree, treats Wilhelm's concurrent restorations of 9 and 10 as fixed points which can be relied on in determining the width of II^2 10. It seems to me that Wilhelm's restoration of II^2 9 is most uncertain and offers no support at all to his restoration of Hippothontis as the tribe in prytany in II^2 10.

The text of II^2 9 is this:

. . . π[. . . . . 20 . . . . . ἐπει-]
[δ]ὴ δὲ καθη[ιρέθη ἐπὶ τῶν τριάκοντα]
αὐτοῖς ἡ σ[τήλη ἡ πρότερον ἀνακειμ-]
ένη αὐτοῖ[ς, ἀναγράψαι τὴν στήλην τ-]
5 ὸγ γραμμα[τέα τῆς βολῆς καὶ στῆσαι]
ἐν ἀκροπ[όλει . . . . 17 . . . .]
τῶι δήμωι[. . . . . 20 . . . .]
. . . ΙΛΛ

This is Wilhelm's first text,[2] which must be substantially right. However, at the time of his main interest in II^2 10 he found that II^2 9. 6–8 could be made to agree with his restorations of II^2 10. 3 and restored them in this way: [3]

ἐν ἀκροπ[όλει. ἔδοξεν τῆι βολῆι καὶ]
τῶι δήμωι, [Ἱπποθωντὶς ἐπρυτάνευε,]
[Λυσ]ι̣ά̣δ̣[ης ἐγραμμάτευε, - - - - - - - - - -]

---

[1] *BSA* XLVII (1952), 108 ff.
[2] *Arch. epigr. Mitt. Oest.* XVII (1894), 38.
[3] *Jahreshefte* XXI–XXII (1922–24), 164; *SEG* III 69.

There are several reasons why we should be sceptical about this. (1) In the first place, the marginal letters in l. 8 depend on the authority of Koehler alone, and, great though that is, it is not difficult to assemble cases where Koehler's readings have been correctly revised by later work. (2) Even if we accept the marginal letters, there is no compulsion to take them as part of Λυσιάδης, since other Attic names like Καλλιάδης, Ναξιάδης, Σιβυρτιάδης, Φαιδιάδης, Πραξιάδης suggest themselves as possibilities. (3) Wilhelm realises that bringing the prescript into conformity with II^2 10 means that there will have to have been three decrees on the stone, the pre-Euclidean decree, the decree ordering its re-inscribing, of which we have part in ll. 1–6, and which Wilhelm dates between 403 and 401, and this third decree of 401–0 for which he suggests no content. The pre-Euclidean decree will have stood on the stone above the decree ordering its re-inscribing, which is unusual but not impossible. But since the stone seems to have had a left-hand edge,[4] we apparently have to assume on Wilhelm's treatment either that the stone remained uninscribed until the third decree was passed, in spite of the provisions of the second decree, or that an engraver, charged with inscribing the third decree on the *stele*, decided to begin it in the middle of the line, which would be quite unparalleled behaviour. (4) The only reason for dating ll. 1–6 between 403 and 401 is the restored prescript to the supposed third decree. The mention of the destruction of the previous *stele* under the Thirty is no very accurate indication of time, for as late as 385–4 we have II^2 32, which certainly provided for the re-inscribing of a pre-Euclidean decree. Indeed, it has been suggested by Foucart [5] and Dinsmoor [6] that II^2 9 should be brought down to the eighties because of the use of ἐν ἀκροπόλει, and, although I do not consider this a very strong argument, this use would be the earliest by some fifteen years on Wilhelm's dating. (5) Tight though Wilhelm's chronology of the three decrees is, it becomes next to impossible if we accept the archonship of Pythodoros (404–3) as the date of II^2 10 and consequently of the third decree. The unknown benefactor will have arrived in Athens, secured the re-erection of his stele and further benefits later, at a time when the Demos had much to occupy it, if indeed it had returned to Athens at all.

If II^2 9 is taken by itself, I do not believe that there can be any doubt that there were only two decrees, the first providing for the re-inscribing of the pre-Euclidean decree, the second the pre-Euclidean decree itself, of which we possess the lamentably fragmentary prescript in ll. 6–7. As it happens, even on our limited information, a satisfactory home can be found for it in the sixth prytany of 410–09, restoring it:

ἐν ἀκροπ[όλει. ἔδοξεν τῆι βολῆι καὶ]
τῶι δήμωι, [Λεωντὶς ἐπρυτάνευε, Σιβ-]
[υρτ]ι̣ά̣δ̣[ης ἐγραμμάτευε - - - - - - - - - - - -][7]

but it will be appreciated that I put this forward most tentatively. The attempt to bring the fragment into association with II^2 10 is uncertainty founded on uncertainty, and should be abandoned. Wilhelm's eighty-seven-letter line for II^2 10 with its restoration of Hippothontis as the tribe in prytany and Archinos as the proposer must stand on its own merits, if it stands at all.

IX. *IG* II^2 145

As may be seen from Pritchett's admirable photograph (*Hesperia* X (1941), 266), there has been a general failure to notice that the last *stoichos* of the first decree has been worn off the stone completely. Read τῆι βολῆι in l. 1 and move the first letter of every line from 2 to 10 to the end of the previous line.

---

[4] Koehler does not say so explicitly, but marks it with a black line (*CIA* II Add. 97 b, p. 407).

[5] *IG* II^2 i. ii, p. 655.

[6] *AJA* XXXVI (1932), 157.

[7] Cf. *IG* I^2 106.

There is no doubt in my mind that the preserved letters in l. 20 on the new fragment (Agora I 5207, *loc. cit.*) are -πι-, and we should read ἐ]πι[εικής rather than χ]ρ̣ή̣[σιμος. The same word should be restored in II^2 347. 12–3 rather than assume a mistake in cutting.

Since Eukles was already in office towards the beginning of 399–8 (Andocides I 112), the first decree belongs to 402–1, 401–0, or 400–399. It cannot belong to 403–2, since the secretary for Erechtheis in that year is known and does not fill the gap. Pritchett (*loc. cit.*) has outlined the evidence for the date of the second decree, which must fall before 358-7 and cannot fall in the years from 363–2 to 360–59. The only dates before 363 which can definitely be excluded are 369–8 (*SIG*^{3} 158) and 378–7 (*IG* II^2 44, 155). Philokles was dead or decrepit by 335–4 (*IG* II^2 1700. 220). After a gap in the family's tenure of the post, his son Eukles (II) appears as herald in 327–6 (Dow, *Prytaneis* no. 1. 35).

X. *IG* II^2 1928

I cannot suggest how EM 12923, published by Schweigert, *Hesperia* VII (1938), 306, no. 29, reached the North Slope from the Theatre of Dionysos, but it belongs to this inscription, as is indicated by the characteristic cutting of ll. 1 and 4 in the form of parts of circles.

The layout, though not the purpose, of the inscription can now be partially reconstructed. It does not seem to have been recognised that the names in the circle (ll. 24–27) on the large fragment all belong to Erechtheis. We can now see that there must have been ten such circles, one for each tribe, for on the new fragment we have the bottom of one circle ending in Ἀχα̣[, *i.e.* certainly Ἀχα[ρνεύς] (tribe VI),[1] then the heading Κ̣εκρ[οπίς] (tribe VII) in larger letters, then part of the top of another circle, presumably of names drawn from Kekropis.[1]

It should be noted, though the time has probably not yet come to assess the significance of the fact, that the blocks on which the liturgy-documents are inscribed exhibit a remarkable uniformity. II^2 1928, 1929, 1932, and the new fragment (Agora I 4689) assigned by Pritchett (*Hesperia* XV 160) to 1929, are all of the same thickness, 0·145 m. Furthermore, 1928 and 1929 are remarkably similar in their preserved edges. They both have been dressed smoothly to a depth of 5 cm., while the rest of the edge has been left rough-picked. Although no edge was originally reported for Agora I 4689, it certainly possesses one at the left, which, though very much battered, exhibits similar characteristics. 1932 has been dressed in the same way, but only to a depth of 4 cm. 1931 is lost. 1930 and the other new fragment of 1929 (*Hesperia* VII 277) are too broken for any determination to be made. The possibility is not to be excluded that, in spite of their dissimilarity in hand and layout, many of these documents come from the same monument.

XI. *IG* II^2 105 + 523 (*GHI* 136)

All scholars except Maltezos (*AE* 1915, 315 ff.) have followed Kirchoff in restoring Αἰαντίδος ἑβδόμης in the eighteen letter-spaces available for the secretary in ll. 2–3 and Μόσχος Κυδαθηναιεὺς in ll. 1–2, on the grounds that the spaces are exactly fitted by the data provided for the seventh prytany by II^2 106. They have then explained that the news of Dionysius' death shortly after the Lenaea (D.S. XV 74) had not yet reached Athens. But is the coincidence of available spaces any more than a coincidence? Eighteen letters for name and demotic is a very average figure for Athens, and on the data available to us for this year the sixteen letters we have for the tribe and the ordinal number can be made up in fourteen ways other than the present confident restoration.

---

[1] This suggestion is partly anticipated in the *Hesperia* Index, vols. I–X 32, *s.v.* Ἀχαιός, where Ἀχα̣[ρνεῖς] is read.

The current restoration, then, is by no means certain. What is certain is that it cannot stand if the current restoration [Μαραθ] for the demotic of the *epistates* in l. 5 is sound. For Marathon belongs to Aiantis, and this decree was passed at least ten years after it had become illegal for the *epistates* to come from the tribe in prytany. We have to balance the probabilities, and I, at any rate, think it more likely that Wilhelm was right in restoring [Μαραθ] as the demotic of the rare name Δάιππος than that Kirchoff was right in making a guess at very long odds.

XII. *IG* II² 152 and 190

Ferguson [1] dated these inscriptions to 365–4 and claimed Phrynon as an annual secretary. The inscriptions do not prove this in themselves, and Ferguson was confessedly influenced by his belief that one complete sortition-cycle for the annual secretaryship, starting in 366–5, should be allowed before the cycle proper started in 356–5. As things stand at the moment, we have no means of choosing between this view and the scepticism of Pritchett and Meritt, which seems to lead them to the view,[2] also held by Kirchner, that the annual secretaryship began in 363–2, the first year for which we can demonstrate it. What we can show I think is that there is no reason to date these inscriptions in 365–4 at all, and that Ferguson has been misled by what might almost be called a frivolous restoration by Wilhelm.

Wilhelm's restoration of 190, now printed in the *editio minor*, gives us Φρ[ύνων] restored as the secretary and a four- or five-letter archon, but he gives up hope of restoring the remains of l. 1, '*die freilich keine sichere Herstellung erlauben*'.[3] But the fact of the matter is that they admit of no restoration at all. If we take another full line and restore ἔδοξεν τῆι βουλῆι καὶ τῶι δήμωι, the tribe in prytany will have twelve letters, and so does not exist. If we add no line above and simply read ἔδοξεν τῶι δήμωι we have a prytanising tribe of only four letters, which also does not exist. The considerable vagaries of spacing which we would have to suppose for a solution are quite impossible in this solid block square chequer-pattern.

The only solution I can see at the moment is to date the decree in 371–0 and restore as follows (I cannot see the *nu* in the *Corpus* l. 2, read only by Wilhelm and not by the first editors):

[ἔδοξεν τῶι δήμωι· Ἱπποθω-]
[ντὶς ἐπρυτάνευεν, Ἀρχ]επ-
[τόλεμος ἐγραμμάτευε,] Φρ-
[ασικλείδης ἦρχεν, Μ]ένης
κτλ.

Archeptolemos is an ill-omened name for an officer of the fourth-century democracy, but its survival is attested by *IG* II² 1700. 190, Agora I 1864, Ἀρχεπτόλεμος Λυσικλέους Κεφαλῆθεν, whom I refer to by courtesy of Professor Meritt, and *AE* 1914, 10 (*REG* XXXII 190). The name Meneptolemos is apparently unknown in Attica. On this view the proxeny will have been conferred for services by the Pelagonian in relation to the western campaigns of the late seventies.

This leaves II² 156 undated again. It must be before 357–6, and 394–3, 373–2, and 363–59 are impossible. The anomalies of the prescript find their closest parallel in II^2 101 of 373–2, and it may well belong in the seventies.

---

[1] *Klio* XV (1914), 393.

[2] *Chronology of Hellenistic Athens* 37, *Hesperia* X 266, n. 6.

[3] *Beiträge* 275–276.

XIII. ANDROTION AND THE TEMPLE TREASURES

Since Penndorf[1] dated the decree *IG* II^2 216–217, of which we possess two copies, in 346–5 by identifying the secretary beginning with Κηφ- as Κηφισόδωρος ’Αθηνοφάνους Φλυεύς, the secretary of that year, only Johnson[2] has questioned the date. His excellent reasons for preferring a much earlier date were marred by difficulties of detail in the solution that he chose, and Kolbe,[3] Ferguson,[4] and Dinsmoor[5] have all rejected his solution and returned to that of Penndorf. This, however, can be shown to be epigraphically self-contradictory and historically unsatisfactory.

Detailed refutation of it as it stands is made unnecessary by the fact that the fragment now published as *IG* II^2 261 is quite certainly the top left-hand corner of *IG* II^2 216. The lettering, the spacing, the thickness, and the moulding are identical, the beginning of the *epistates*' name (known to us from II^2 217) ’Αρ. is continued satisfactorily by στο[, and the secretary's name beginning with Κηφ- is shown to be, not Κηφισόδωρος, but the equally good Attic name Κηφίσιος. 346–5 is therefore an impossible date.

No one would be inclined to place it later. Historical probability and engraving style tend to forbid this, to leave out of account for the moment the probable absence of patronymic and demotic from the proposer's name.[6] The extreme upper date is supplied by the mention of the archon of 377–6 in l. 10, though, as we shall see, the knowledge we have from Demosthenes of Androtion's activities makes it improbable that the decree is earlier than 368–7.

No secretary named Κηφίσιος is known to us, which makes the task of finding the true date more difficult. It might be impossible, were it not for an unobserved epigraphic feature of both copies. In both, as may be observed from the photographs, l. 1 is so spaced that every letter falls over every other *stoichos* of the regular pattern of the main text of the decree. The filling of the blank ’Επὶ - - - - - ἄρχοντος is therefore governed directly by the line-length of the body of the decree, and its own arrangement in turn makes it impossible for the lines of the decree to have an even number of letters. If the lines of the decree had thirty-five letters, the archon's name in the genitive will have had six letters, if thirty-seven, seven, and so on. The *editio minor* text with a thirty-nine-letter line and a six-letter archon is a flat impossibility.

Let us ignore for a moment the current attractive restorations with a thirty-nine-letter line, for they are not arrived at from first principles, but postdate Penndorf's supposed identification of the secretary and consequent determination of the line-length. Let us confine ourselves to the demands of the prescript. That l. 2 ran ἔδοξεν τῆι βολῆι καὶ τῶι δήμωι is highly improbable. Even with the shortest possible tribe in prytany, it demands an unwieldy forty-seven-letter line, a nearly impossible twenty-eight letters for the patronymic and demotic of the secretary, and a twelve-letter archon. Hippodamas (375–4) and Phrasikleides (371–0) are virtually ruled out by the probable *terminus post quem*, and the annual secretary belonging to Themistokles (347–6) is known. Line 2 must read ἔδοξεν τῆι βολῆι (or βουλῆι) or ἔδοξεν τῶι δήμωι. Experiment with the possible tribes shows immediately that we have to do with a thirty-five-, thirty-seven-, or thirty-nine-letter line and an archon of six, seven, or eight letters in the genitive. An elimination of those archons whose annual secretaries are known leaves us only Kalleas (377–6, six or seven letters), Asteios (373–2, Johnson's date, six or seven letters), both excluded by the probable *terminus post quem*, Polyzelos (367–6, eight or nine letters), Chion (365–4, six letters),[7] and Theophilos (348–7, seven or eight letters).

---

[1] *De Scribis* 197.
[2] *CPh* IX (1914), 424.
[3] *Philologus* XXXIV (1929), 265 ff.
[4] *Treasurers of Athena* 120–121.
[5] *AJA* XXXVI (1932), 162.
[6] The accepted demarcation line for this is 354–3, but such rules are admittedly unsafe. *IG* II^2 366, which certainly belongs to 323, is a private inscription and does not come under the rule.

Finally, let us look at l. 5. The first phrase of the decree ends in]ηι, and the only possibilities I can see are δέδοχθαι, τῆι βολῆι, and ἀγαθῆι τύχηι. If δέδοχθαι τῆι βολῆι is right, our line is fixed. The proposer cannot have had less than four letters in his name. To give him even as many, we have to supply the longest tribe Ἱπποθωντίς in l. 2, giving us a thirty-nine-letter line and an archon of eight letters. We could then substantially retain Kirchner's restorations of a thirty-nine-letter line, as revised by Wilhelm.[8]

With this solution there are two possibilities, Polyzelos (367–6) and Theophilos (348–7). For me the later date has little attraction. Granted that the argument from the style of cutting may be subjective, and that from the absence of patronymic and demotic in the proposer's name fallacious, what would be the point in 348–7 of citing 377–6 as a date relevant to the dedications, when many of them had been transformed out of recognition by Androtion's activities? Why should new regulations for the *tamiai* be necessary after the reforms of 353–2,[9] which were among the first activities of Euboulos after coming to power, and what effect can be shown on the evidence of the inventories, which are fairly plentiful in this period, to have resulted from the new regulations? To none of these questions can I see satisfactory answers and, with a thirty-nine-letter line, the decree would have to be dated in the first prytany of 367–6.[10] Some ground for satisfaction with this date may be found in the reference to 377–6, that is, a ten-year period is being envisaged, as in II^2 120. 9, though there the ten years are reckoned inclusively and here exclusively.

If, however, we read ἀγαθῆι τύχηι in l. 5,[11] a thirty-five-letter line becomes a possibility. That this is a more likely solution will at once become clear, if we examine the neglected fragment 216*b*. Not only do ll. 3–5 demand a thirty-five-letter line restoration:

3 τὰ παραδιδ[όμενα· ἐὰν δέ τọ προσδέηι τόδε τὸ]
ψήφισμα, ἥ βο[λὴ κυρία ἔστω ψηφίζεσθαι ὅτι ἂ-]
ν αὐτῆι δοκῆι [ἄριστον εἶναι]

parallel to II^2 204. 85–86, 1629. 264–267, but they immediately make it probable that the decree is not a decree of the Council, but of the People. In that case ἔδοξεν τῆι βολῆι goes in l. 2 and with it δέδοχθαι τῆι βολῆι in l. 5. Of course, it is by no means impossible that fragment *b* belongs to a second decree cut on the same stone, that a prescript of a decree of the people has been lost, and that fragment *a* is part of an amending decree of the Council passed in accordance with this provision. But the early lines do not suggest that they are part of an amending decree.

Again, there are some reasons to think that the restorations proposed for a thirty-nine-letter line are just four letters too long. Wilhelm's parallels proving that μεταπαραδίδωμι is a *vox propria* for treasurers, represent one of his most brilliant feats in the collection of comparative material, but they do not altogether convince me that it is a *vox propria* for the Treasurers of

[7] For the supposed secretary of Chion's year, see above no. XII.

[8] *ÖJh* XXXIII (1941), 29 ff.

[9] See Schweigert, *Hesperia* VII (1938), 286, for this new certain dating of II^2 120.

[10] The exact date is provided by *Hesperia* X (1941), 16, no. 1, l. 40. An incidental result would be that this year would replace 368–7 as the latest for which we can demonstrate the monthly secretaryship, for the secretary for the third prytany is known from *Hesperia* VIII 5, no. 3 (*GHI* 137) and is different.

[11] Fourth-century parallels for the phrase by itself are scarce, but it is a certain restoration in *IG* II^2 1141 (376–5), as revised by Pritchett, *Hesperia* X 265 no. 67.

Athena. What is more serious, Kirchner's apparently certain restorations of ll. 5–7, 11–12 (τοὺς ταμίας [τὸς νέος παραδέξασθαι πάντα τὰ χ]ρήματα τὰ ἐν τῆ[ι ἀκροπόληι παρὰ τῶν προτέρων τα]μιῶν and παραδõναι δ[ὲ τοὺς ταμίας τὸς προτέρος τοῖς νέο]ις) appear to me to contain a solecism, for I do not see how the treasurers can be πρότεροι before they have handed over. Their position has a precise word in Attic; they are ἕνοι.

With a thirty-five-letter line, the obvious possibility for archon is Chion (365–4). Asteios (373–2) and Kalleas (377–6) are remote possibilities. I offer the following text of II² 216, though the general drift of the decree is by no means certain. Letters supplied from II² 217 are underlined. The variations in spelling to be allowed for in 217 are discussed in the notes.

365–4 ΣΤ. 35

Ἐπὶ [Χίωνος ἄ]ρχοντ[ος] *a*
c ἔδοξ[εν τῶι δήμωι· . . . 6 . .] ἐπρυτάνευε[ν, Κηφί-]
σι̣ος [. . . . . 15 . . . .]ς ἐγραμμάτε[υεν, Ἀρι-]
στο[. . . . . 13 . . . . ἐπε]στάτει·
5 [. . 5 . . εἶπε· ἀγαθῆι τύχ]ηι τοὺς ταμίας [τοὺς ν-]
[έος παραδέξασθαι τὰ χ]ρήματα τὰ ἐν τῆ[ι ἀκρο-]
[πόληι παρὰ τῶν ἕνων τα]μιῶν. ὅπως δ' ἂν ὡ̣[ς δικα-]
[ιότατα παραδοθῆι τό τ]ε ἄγαλμα καὶ τ[ὰ πομπε-]
[ῖα τὰ τῆς θεοῦ καὶ τὰ ἄλ]λα τὰ ἐν τῆι ἀκ[ροπόλη-]
10 [ι, ... 11 . . . . . . τὰ ἀπὸ Κ]αλλέο ἄρχοντ[ος ἀνα.]
[. . . . . 18 . . . .]ν̣· παραδõναι δ[ὲ τοὺς τ-]
[αμίας τὸς ἕνος τοῖς νέο]ις τὰ μὲν πομ[πεῖα τὰ]
[χρυσᾶ κατὰ τὸ ψήφισμα ὃ] Ἀνδροτίων [εἶπε, τὸ δ-]
[ὲ ἄγαλμα ἀνεξετάζειν με]τὰ τοῦ ἀρχ[ιτέκτον-]
15 [ος καὶ τõ . . . . 9 . . . . καὶ τ]ῶν ἀγαλμ[ατοποιῶν]
[. . . . . 20 . . . . α]ι καὶ τἆ[λλα τὰ . 3 .]
[. . . . . 21 . . . .] τὰ δὲ π[αραδοθέντ-]
[α . . . . 17 . . . . ? στῆσα]ι [τὰ μὲν ? . . . 6 . .]

lacuna

[. . . . . 30 . . . . τὴν πα-]
b ράδοσι[ν . . . . 22 . . . . ἀντίγρ-]
αφα πρὸς τ[. . . . . 27 . . . .]
τὰ παραδιδ[όμενα· ἐὰν δέ το προσδέηι τόδε τὸ]
ψήφισμα, ἡ βο[λὴ κυρία ἔστω ψηφίζεσθαι ὅτι ἂ-]
5 ν αὐτῆι δοκῆι [ἄριστον εἶναι. . . . . 12 . . . . .]
αι κατὰ τὸ Ἀνδρ[οτίωνος ψήφισμα. . . . . 9 . . . . .]
δὲ καὶ τὰ ἐν τῶι τ[. . . . . 17 . . . . , ὅπως ἂ-]
ν εἰδῶσιν Ἀθηναῖ[οι ὅτι τῶν κακουργούντων]
10 αὐτοῖς ἐστιν ἡ κόλα[σις ? *vacat*]

vacat

Notes

Line 1. The tribe in prytany was Aigeis or Oineis.

Line 2. The only Kephisios of the period known to us who fills the gap is Κηφίσιος Ἐπικράτος Ἰωνίδης (*PA* 8290). There is no particular reason to suppose that he was the secretary. With a thirty-nine-letter line the only candidate is Κηφίσιος Κηφισοδήμου Παλληνεύς (*PA* 8295).

Lines 5–6. 217 has [τ]ὸς ταμίας τοὺς νέ|[ους].

Line 9. Since by the middle of this line spelling difference has caused 217 to lose a letter, I follow Kirchner in assuming that 216 must have read τὰ ἄλλα and 217 τἆλλα. τὰ τῆς θεοῦ I owe to Mr. Woodward. There is no room for another group of objects with καὶ, and the available space makes impossible the attractive assumption that the same restorations will apply both here and in l. 13.

Lines 10–11. This is the key sentence, and it is nearly hopeless. 217 has regained its lost letter by the middle of l. 10, which suggests very strongly that the early part of the line consisted of an infinitive plus αὐτός. It gains another in the course of the line by having Καλλέου for Καλλέο, but has lost it again by the middle of l. 11, although there is no possibility of an accusative plural or genitive singular in the line. Wilhelm's thirty-nine-letter solution for l. 11 ἐντὸς εἴκοσι ἡμερῶν is maintained only by the supposition that one of the *iotas* was closed out of *stoichedon*, which is improbable in such careful work and unattractive to Wilhelm himself. According to the restoration of Wilhelm and Kirchner, the objects dedicated since 377–6 are to be listed. It is difficult to see why just these objects should be listed to assist the παράδοσις which appears to be in progress, and since it is clear from the inventories that the objects were listed as they came into the main inventory, we should expect, in the missing portion, not a limit of time within which they are to be listed, but an indication that they are to be listed separately. The only way I can see to explain the divergence in spacing between 216 and 217 is to assume that the word beginning with ἀνα- was different in the two copies. Possibly we should read in 216 [ι, γράψαι αὐτὸς τὰ ἀπὸ Κ]αλλέο ἄρχοντ[ος ἀνατεθέντα χωρὶς τῶν ἄλλω]ṿ and in 217 γράψαι αὐτοὺς τὰ ἀπὸ Καλλέ]ου ἄρχοντος ἀνα[θήματα χωρὶς τῶν ἄλλων]. For the simple verb γράψαι *cf.* II^2 120. 12. Alternatively, we may suppose that during the term of office of the new board melting operations are going to take place, and that the first step towards this would be the segregation of these objects for special treatment. We could then read θεῖναι for γράψαι. Mr. Woodward suggests to me a further possibility, στῆσαι. 'If there had been some carelessness in recording recent dedications, it would be natural to check the weights, whereas presumably the pre-Kalleas dedications would be of known weight.' This seems to me very probable, especially since we know that the objects dedicated in the ἀρχαῖος νεώς between 377 and 370 were in fact unweighed. 217 has παρ]αδοῦναι.

Line 12. 217 must be restored τοὺς ἕνους, bringing it three letters ahead of 216. It has μέμ for μέν.

Lines 13–14. τὰ χρυσᾶ is completely conjectural, but the restoration I suggest of these two lines perhaps raises less difficulties than Kirchner's τὰ μὲν πομπεῖα καὶ τὸ ἄγαλμα, for a δέ clause to balance the μέν must start at the end of l. 13, and as the architect and the sculptors seem to appear in it, it is probably concerned with the statue. In l. 14, 217 has τõ ἀρχιτέκτονος, making it only two letters ahead.

Line 15. As the gap has gone back to three by the middle of this line, we may infer that the unrestored part contained a nine-letter official in the genitive singular. I have no suggestions to offer.

Line 17. The gap which remains constant in l. 16 is reduced to two in this line.

Line 18. In this line there seems to be a wide divergence of reading, since the letter read by Kirchner as the *eta* of στῆσαι is a clear *iota*. If it belongs to στῆσαι, this means a gap of five letters has now opened, but speculation is unprofitable. The sense of στῆσαι might be that the objects set aside in ll. 10–11 are to be weighed preparatory to melting.

Fragment *b*, lines 5–7. I had failed to find any solution for these lines. Mr. Woodward suggests

[ὅτι ἂ-]
ν αὐτῆι δοκῆι [ἄριστον καὶ δικαιότατον εἶν-]
αι κατὰ τὸ ᾿Ανδρ[οτίωνος ψήφισμα. ἀπογράψαι]
δὲ καὶ τὰ ἐν τῶι τ[ιμήματι γεγραμμένα, ὅπως] κτλ.

Line 5 then refers back to *a* 7. ‘ If we are looking for a word to explain the allusion to κόλασις, some publication of a previous penalty, which is a good fourth-century sense of τίμημα, would make a suitable subject for the δὲ καί.’ I have failed to find any other noun in *tau* which seems relevant.

Fragment *b*, lines 8–9. I restore more to indicate the sense than from any conviction of literal accuracy.

The new date of the decree carries with it the need to reconsider current datings of Androtion's reform of the temple treasures. Kolbe,[12] in refuting Johnson's attempt to place it in the seventies, went no further than saying that it must belong shortly before Demosthenes' speech *Against Androtion*. This argument weighed heavily both with Ferguson,[13] who suggested 358–7 or 356–5 as possible dates, and Dinsmoor,[14] who inclined to 359–8. But their work is now, at least in part, obsolete, since they were trying to date not the activity of Androtion, but both it and the inventory-reform of II^2 120. This last, however, has now been shown by Schweigert's new fragment of II^2 1438 to belong to 353–2,[15] well after any possible date for the activity of Androtion, and there is no positive reason to join, and some political reason to disjoin, Androtion's reforms and those of 353–2, which must be attributed to the influence of Euboulos. The third reason weighing with both Ferguson and Dinsmoor was a wish to associate Androtion with the introduction of the forward rotating cycle for the secretary of the treasurers, but the association and the date of the inception of the cycle are alike hypothetical. The evidence for dating Androtion in the fifties is now a good deal weaker than it was twenty years ago, and the new dating of 216–17 provides new evidence for a rather earlier date, since it suggests that in the middle sixties Androtion was proposing or had proposed reorganisation of treasure administration. It may, of course, be held that the decree referred to here is distinct from the activity described by Demosthenes,[16] but Demosthenes' words αὐτὸς ῥήτωρ, χρυσοχόος, ταμίας, ἀντιγραφεὺς γέγονεν [17] demand at least an attempt to keep them together.

The *terminus ante quem* for Androtion's activity is, of course, the year of Demosthenes' attack or, rather, the year of Androtion's councilship, which immediately precedes it. The speech is generally dated in 355–4.[18] I find this date very difficult to understand. I accept as certain Schweigert's redating of the opening events of the Social War,[19] that is, I place the Euboean expedition in early spring 357 and the battle of Chios in about May, at any rate after the generals' election in the seventh prytany and before the end of the archon-year of 358–7. Now the speech falls after the Euboean expedition, which took place πρώην. But it seems to me that it also falls before the battle of Chios and that an examination of §§ 12–16 shows this. Demosthenes gives four examples of the value of sea-power, two of the profit resulting from possessing it, two of the loss resulting from not having it: two old, two new. (13) Salamis, profitable and old, (14) Euboean expedition, profitable and new, (15) the Decelean War, old and disastrous, and the last war against the Spartans, new and painful, this last presumably being a reference to the late seventies.[20] I find it hard to believe that this choice of examples was made after the beginning of the Social War, particularly in 355–4. If Androtion's Council really had served in 356–5, as the conventional date would compel us to believe, and had not performed its shipbuilding functions, I feel that Demosthenes' language would have been a good deal more vigorous and specific. But, as a matter of fact, ships were built in quantity throughout the war. If *IG* II² 1612 were correctly placed by Kirchner in 356–5, the conventional theory would be quite untenable, since it comes from a year of great shipbuilding activity, but Sundwall is probably right to place it at the end of 357–6. There are, however, two passages in the navy-lists which seem to support an alternative date for the speech. The first is 1622. 329 ff., the list of sums collected by naval officials in debt to the state during the years 345–341, which may point either way. It is by no means complete, but some suggestive facts emerge. At least five of the νεωρίων ἐπιμεληταί of 356–5 owed money from their term of office (ll. 402, 417, 479, 518, 545). Since they paid 55 drachmae each, they may have been assessed collectively and divided the debt, though the official from Antiochis does not pay. It could be argued that the board was held responsible for the defalcation of its *tamias*. It will be recalled that the reason assigned (Dem. XXII 17) for the failure of Androtion's Council to build ships was that ὁ τῶν τριηροποιϊκῶν ταμίας ἀποδρὰς ᾤχετ' ἔχων πένθ' ἡμιτάλαντα. A closer approach to our case may, however, be found in 359–8. No member of the board of that year appears to have been in debt, but 300 drachmae are placed to the account of Nikomenes of Pallene, *tamias* of that year, not by himself, but by a representative (1622. 573). The second passage is 1611. 106 ff., a list of the νῆες ἐξαίρετοι of Zea. In this list the three years 363–2, 362–1, 361–0 appear to be represented by four ships each, 360–59 by seven ships, 358–7 by ten ships, whereas 359–8 is represented only by one ship. I suggest that there were serious deficiencies in the ship-building of that year, that it was the year of Androtion's councilship, and that the case against him, after some delay, came on towards the end of the next year, in the late spring or early summer of 357.

---

[12] *Loc. cit.* [13] *Op. cit.* 119, n. 1. [14] *Op. cit.* 164.

[15] See n. 9. Dinsmoor, to allow for this, has now (*HarvSt* Suppl. I 177, *AJA* LI (1947), 128) brought Androtion's activity down to 355. This seems to me to involve a corresponding down-dating of Demosthenes' attack, and still does not bring the two reforms into conjunction.

[16] Such a view would make 377–6 and 373–2 possible dates for the decree. [17] 22. 70, 24. 178.

[18] So Dionysius, *Ad. Amm.* I 3. Schwartz, *RE* I 2174 and Stavenhagen, *Quaestiones Demosthenicae* 31, n. 3, found themselves unable to believe this. As Stavenhagen says, '*Si oratio anno 355–4 habita esset, senatus anno 356–5 naves aedificandas neglexisset, quam rem, cum illo anno Athenienses bellum sociale gererent, nemo credat. Oratio ergo 354–3 habita est, quod iam Schwartz vidit.*' This seizes the main point, but I do not think that the conclusion can be maintained in view of the absence of the Social War from XXII 15. This absence was felt odd even by Kahle, *De Demosthenis orationum And., Timocr., Aristocr. temporibus*, who returns (51) to 355–4, placing it as early as possible in the year to get it before the worst disasters. His reply (44) to Stavenhagen is '*Cur non? notum est Athenienses huius belli temporibus pecuniam maximo modo defecisse; cur igitur plane incredibile videtur naves tum aedificatas non esse?*' He is acute in detail, particularly in the method by which he undervalues the certain evidence (*IG* II^2 1614. 37 ff.) which proves that ships were built in 356–5, but never really considers the implications of placing in that year a Council which built no ships, or of the fact, as it seems to me, that Demosthenes never mentions the war at all.

As Kolbe saw,[21] the upper limit for Androtion's activity must be found by comparing with the inventories the list of crowns that Demosthenes says[22] were melted down. Unfortunately it seems to be doubtful whether all Demosthenes' crowns existed, and some of them appear to be more in the nature of illustrations of the sort of inscription that appeared on crowns. We can say with security, I think, that we know, particularly from II² 1425, all the crowns that were dedicated between 377–6 and 368–7. Demosthenes' first crown, οἱ σύμμαχοι τὸν δῆμον ἀνδραγαθίας εἵνεκα καὶ δικαιοσύνης does not appear on the lists we have, for it is hardly to be identified with the crown that the Demos dedicated in 369–8.[23] The second, οἱ σύμμαχοι ἀριστεῖον τῆι Ἀθηναίαι was identified by Kolbe, followed by Ferguson,[24] with the Panathenaic crown of 378–7. But the Panathenaic crowns which are alone described as τῆς θεοῦ ἀριστεῖον are never associated with the allies in the inventories, and in fact this and the other Panathenaic crowns of the seventies were left untouched by Androtion to reappear either on the stone or certainly restored in *c.* 352–1 and 350–49.[25] The third crown Εὐβοεῖς ἐλευθερωθέντες ἐστεφάνωσαν τὸν δῆμον is very odd. It makes no historical sense until 357, and though defenders of the traditional date of the speech *Against Androtion* might accommodate it, it will, I think, be necessary to maintain that Androtion conducted his treasure-reform as a member of the Council in 356–5, for which there is no support in the speech. They will also be exposed to the argument brought by Kolbe against Johnson that it would be vaguely ridiculous to speak of a year-old crown as rotten. I think the solution in the matter of this crown is to be found in the word οἷον with which Demosthenes prefixes it. This is not a real inscription, but the *sort of* inscription which a crown might have, and it is natural that he should select his illustration from the most recent feat of Athenian arms. The last crown Χαβρίας ἀπὸ τῆς ἐν Νάξῳ ναυμαχίας, which is found, not in the speech *Against Androtion*, but only in the speech *Against Timokrates*, is very puzzling. If it is in the lists at all, it can only be identified with the στέφανος ὃν - - - - - ἀνέθηκε [26] which was not dedicated until after 374–3, probably not until 371–0, which seems a good deal too late for Chabrias. Was it dedicated in some place for which there was no inscribed inventory, or is the reference to it an interpolation? [27] Only with the fourth crown, Konon's crown dedicated after Knidos, are we on firm ground. That it existed we know; that it still existed in 368–7 we know,[28] and we never meet it again. Androtion's melting operations then do not begin until after 368–7.

---

[19] *Hesperia* VIII (1939), 14–16.

[20] *Contra*, Weil, *ad loc.*, but how could the Corinthian War be the most recent war against the Spartans? [Dem.] XLIX 13 is the *locus classicus* for the situation of 373.

[21] *AM* XXXV (1910), 51–52.

[22] XXII 72; XXIV 180.

[23] II² 1425. 131.

We have then a field of approximately eight years. There is a strong tendency to pull Androtion's activity as near to the speech *Against Androtion* as possible. For this I see no reason. Demosthenes is meeting the objection that there has been some good in Androtion's career ἄλλα δ' ἔσθ' ἃ καλῶς διῴκηκεν,[29] and he embarks on a subject which had been prominent in the public eye and, it might be said, in that of the youthful and patriotic Demosthenes. I can find no clue that we are dealing with an event of the last two or three years, and on the contrary I think that a close study of the inventories will give us reason to accept the evidence of the decree and assign Androtion's melting operations to the middle sixties rather than the early fifties. Much has been written about what Androtion melted down. It may be equally profitable to see what he left behind. For this we can go to II^2 1438 (*c.* 352–1) and 1436 (350–49). Everything has gone from the seventies except the three Panathenaic crowns of 378–7, 374–3, 370–69; so have the four miscellaneous crowns of 370–69 (1425. 123–60), the one of 369–8 (1425. 131), and three from 368–7 (1425. 221, 227, 230). But the two crowns originally described as for the δήμου συλλογεῖς of 369–8 and 368–7 (1425. 128, 224) [30] remain (1438. A5, 1436. 15–16) and their successors, which, though only described as στέφανος χρυσοῦς ἐπὶ - - - - - - ἄρχοντος, are linked with them by the maintenance of the 36–40 gold drachma standard (*i.e.*, presumably 500 silver drachmae), survive in a long unbroken line through the sixties and fifties and so do the 250 gold drachmae *aristeia* of 363–2 and 361–0. This evidence is capable of two interpretations. It might be that Androtion, operating in the early fifties, melted all miscellaneous crowns from the sixties while leaving the annual series and the *aristeia* untouched, presumably because they had fixed weights.[31] The one fact that this theory fails to explain is that the absence of miscellaneous crowns from the lists is not confined to the sixties. They do not reappear until 354–3, well after any possible date for Androtion's activity.[32] If foreigners crowned Athens in these years, and presumably they must have done, the crowns may well have been treated as the *aurum coronarium* they always were in the last resort, and been put straight into the melting-pot. Our evidence is not yet enough for a decision, but so far it seems to point at least as strongly to the middle sixties as to the early fifties.

---

[24] *Op. cit.* 121. But on the next page he recognises that it survived.

[25] II^2 1438 A 1–4; 1436. 9–14, as revised by Schweigert, *Hesperia* VII 287. All references to 1438 are to Schweigert's revised text, *ibid.* 284–285.

[26] II^2 1425. 333; 1428. 194. All references to 1428 are to the revised text in the Addenda and Corrigenda to *IG* II^2 ii. ii.

[27] This suggestion is not as wild as it may seem; there are four other interpolations in the same paragraph.

[28] II^2 1425. 284.

[29] XXII 69; XXIV 176.

[30] The weight of the crown of 369–8 is given erroneously in 1425. 130.

The problem would be simplified if II² 1428 were in better condition. Inscribed in the summer of 366, it does at any rate show that the bulk of Hekatompedon crowns listed in the previous year (1425. 119–132, 220–231) were listed, though not more than one identification can be made. But the list of objects in the ἀρχαῖος νεώς shows a slightly different story which can be supplemented from II² 1429, which follows it fairly closely [33] and may belong to the next year. The first twenty-two objects appear in a constant order in 1424. 1–16 (374–3), 1424a. 347–366 (371–0),[34] 1425. 284–312 (368–7), 1428. 164–182 (367–6) and 1429. 35–47, though only 1424a and 1425 are complete. The only exception to be noted is that the order of the φιάλη ὑπόξυλος ἐπίχρυσος, the χρυσίον ἄπυρον ὃ ἀνέθηκε Φιλτώ and the δακτύλιος χρυσοῦς ἄστατος ὃν Ἀρχεδίκη ἀνέθηκεν (1424. 7–10, 1424a. 359–361, 1425. 302–305) has been slightly shuffled in 1428. 171–173, but is corrected in 1429. 37–39. The remainder of the panel is rather more complicated. There are twelve items to be considered: (1) στέφανος χρυσοῦς ἄστατος, ὃν ἡ βουλὴ ἡ ἐπὶ Καλλέο ἀνέθηκεν; (2) στέφανος χρυσοῦς ἄστατος, ὃν ἡ βουλὴ ἡ ἐπὶ Χαρισάνδρο ἀνέθηκεν; (3) ξιφομάχαιρα χαλκῆ πρὸς τῆι παραστάδι; (4) στέφανος χρυσοῦς, ὃν Τιμόθεος ἀνέθηκεν; (5) στέφανος χρυσοῦς, ὃν Φίλιππος ἀνέθηκεν; (6) στέφανος χρυσοῦς, ὃν Καλλίκλεια ἀνέθηκεν; (7) στέφανος χρυσοῦς, ὃν ἡ βουλὴ ἡ ἐφ' Ἱπποδάμαντος ἄρχοντος ἀνέθηκεν; (8) φιάλη ἀργυρᾶ, ἣν Ἀριστοβούλη ἀνέθηκεν; (9) ξίφη δύο πρὸς τῆι παραστάδι; (10) φιάλη ἀργυρᾶ, ἣν - - - - - ἀνέθηκεν; (11) στέφανος χρυσοῦς, ὃν - - - - - ἀνέθηκεν; (12) φιάλη ἀργυρᾶ, ἣν Νικοφῶν Θημακεὺς ἀνέθηκεν.

In 1424 we have (1) to (8) in order. In 1424a, (1) is omitted altogether, (3) drops to a new position below (8), and (9) follows it. The omission of (1) is simply a matter of slipping a line. The haste with which column III was inscribed can be inferred from the spelling mistake in l. 366 and, what is more serious, the omission of (10), (11), (12), which can hardly have been dedicated later than this year, since we known from 1425 the ἐπέτεια of 370–69, 369–8, and 368–7. 1425 begins by following 1424a, *i.e.* it has in order (2), (4), (5), (6), (7), (8), (3), (9). It then re-introduces (1), and follows it by (10), (11), (12). (The deleted lines will simply have been the τάδε προσπαρέδοσαν formula of 1428. 192–3 and 1429. 58 ff., which is superfluous.) 1428 has the same basic structure, but (2) has now disappeared and (1) has disappeared from its new position; it runs (4), (5), (6), (7), (8), (3), (9), (11), (12). (10) has disappeared too, but that this is simple carelessness is proved by 1429, where it reappears in a new position between (8) and (3). 1429 runs (4), (5), (6), (7), (8), (10), (3), (9), (11), (? 12).[35] In other words, (1) and (2), the gold crowns of the Councils of 377–6 and 376–5 are absent in the summer of 366, having disappeared from different places in the list, and their absence is confirmed by another later list. From its aberration in ll. 171–173 and its omission of (10), it can indeed be inferred that 1428 is a careless list, but 1429 carefully corrects these errors, but not, on the part preserved to us, the omission of (1) and (2). It may be that it replaced them lower down and that their disappearance from 1428 is purely fortuitous; it may be that Androtion's melting process had already started by the summer of 366 and had absorbed these two crowns.

---

[31] But the δήμο συλλογεῖς crown of 370–69 (1425. 126–7) was melted, though of standard weight.

[32] One might invoke the Social War to bridge the gap, but was no one at all prepared to crown Athens during it?

[33] This result is obtained by comparing 1425. 85–107, 1428. 113–130 and 1429. 22–34.

[34] For the new date of 1424, see Kolbe, *loc. cit.*; 1421, 1423, 1689 and *Hesperia* IX 320 no. 32 belong to the same stone, and I suspect that 1434 would prove to belong also, if we could find it. For the new date of 1424a, see Woodward, *AE* 1937, 165, n. 3.

[35] Part of (11), though not read in the *editio minor*, is clear on the stone, and there is no reason to suspect that (12) was missing from its normal rubric.

I do not claim to have established more than that by the middle sixties Androtion was taking an interest in the temple treasures. I myself believe that *IG* II^2 216–217 are to be dated in 365–4, but 367–6 is a distinct possibility. My arguments from the lists do little more than point the way to a possible date for Androtion's melting in the middle sixties. Those who wish to retain a date in the fifties will have to provide a more careful defence of the traditional dating of the speech *Against Androtion* than has so far been attempted and, particularly if they believe the Euboean crown of Dem. XXII 72 and XXIV 180 to be genuine and to belong to 357–6, a closer analysis of the offices held by Androtion in the fifties. One substantial inventory from the fifties would settle the question. Meanwhile we are still groping in the dark.

One more topic remains to be discussed. Johnson [36] suggested that the word κόλασις in II^2 216 b 10 might be connected with the famous burning of the Opisthodomos by dishonest treasurers.[37] Clearly this cannot be proved. Whether it is a possibility at all for our new date can be ascertained only by an examination of the arguments put forward by Dinsmoor twenty years ago for the date 377,[38] which have not yet been sufficiently examined from the epigraphic side. Let us take them one by one. Now that Schweigert has added a new fragment to Erechtheum fragments XXVII–XXVIII,[39] showing the names of three workmen known from the rest of the accounts, these fragments, with their mention of a fire, can no longer be placed in the seventies,[40] and the burning of the Old Temple [41] can be left with Kallias (406–5) and not transferred to Kalleas.[42] Secondly,[43] the fact that the Treasurers of Athena for 377–6 did not name the preceding board (*IG* II^2 1410) can, I think, be seriously over-valued, for neither did the Treasurers of the Other Gods for 376–5 (*IG* II^2 1445), and it could only be argued with difficulty that, while the Treasurers of Athena who had defaulted were replaced with another board in 377–6, no new board was appointed for the Other Gods until the next year. There are various possible explanations for the omission of the previous board in II^2 1410, and not all need be discreditable to them. Thirdly, the question of tribal rotation of secretaries is deadlocked for want of new evidence. While Dinsmoor [44] maintains his view that there was reverse rotation of secretaries of the *tamiai* between 385 and 358, Pritchett and Meritt [45] remain equally adamant for sortition cycles. As long as there is only one dated secretary, that of 376–5 (II^2 1411), between 389 and 351, Dinsmoor's theory that there were two secretaries in 377–6 remains unverifiable. Fourthly, the fact, if it is a fact, that the Treasurers of Athena gave up paying for the erection of inscriptions in 377–6 [46] need argue no more than that the increased business attendant on the new Confederacy made necessary the creation, if he did not exist already, of the Treasurer of the People, to whom this function could conveniently be transferred. Fifthly, Dinsmoor thinks [47] that the period of disordered inventories after 385 ends in 377–6 and that this period had offered an opportunity to dishonest treasurers to create the 'cataclysm among the votive offerings' of 377–6. Now the 'cataclysm' which removed offerings earlier than 377–6 has been brilliantly analysed by Ferguson [48] as an administrative re-organisation, similar to that of Androtion, in which miscellaneous offerings were reshaped into the new Nike of 374–3 and into gold hydriae, and even Dinsmoor admits this to be plausible.[49] It may also be inferred that the period of disordered inventories had already ended before 377–6. Dinsmoor himself has convincingly dated [50] II^2 1426 in 375–4, since, though not columnar, it has a conventional ἀρχαῖος νεώς group followed by a Chalkotheke group, it seems in perfect order, and its ἀρχαῖος νεώς group ends with the crowns of 377–6 and 376–5 (our (1) and (2) above). II^2 1415, the latest and most ordered of the disordered group, placed by Ferguson [51] and Woodward [52] in this year, must be earlier. In fact, it must be at least four years earlier, since it cannot be combined with either 1411 (376–5) or 1410 (377–6), and there is still another ordered, non-columnar list to be accounted for in II^2 1433, which has a conventional Parthenon-list followed by a Chalkotheke list,[53] cannot be later than 378–7 and is probably later than II^2 1415. 377–6, then, ceases to be the date of the re-introduction of order into the inventories. Sixthly, Dinsmoor maintains [54] that a general transfer of material from the Opisthodomos took place in about 377–6. Admittedly it is demonstrable that there was a good deal less in the Opisthodomos in the sixties than in the nineties, but since the inventories of the period of disorder do not locate the objects that they list, there is absolutely no means of showing that the transfer took place in 377 and not at some time in the eighties. Dinsmoor himself seems to suggest for a moment [55] that there was such a transfer in 389–5. One final point against the whole theory. No one believes that the dishonest treasurers burnt anything but the Opisthodomos, and the Scholia on Dem. XXIV 136 suggests only that they had misappropriated money. It would be perfectly reasonable to burn the Opisthodomos to conceal this, but on Dinsmoor's view they had misappropriated not only money but also the dedications, and to conceal this they would have had to burn the Hekatompedon as well. However strong a case Dinsmoor has built up for 377–6 as a pivotal date, it still cannot be made to fit the circumstances described by Demosthenes and his Scholiasts.

---

[36] See n. 2. [37] Dem. XXIV 136 with Scholia. [38] *AJA* XXXVI (1932), 143–172.

[39] *IG* II^2 1654; new fragment, *Hesperia* VII (1938), 268–9, no. 3 (*SEG* X 300).

[40] Dinsmoor, *op. cit.* 143–160. [41] Xenophon, *HG* I 6. 1.

[42] Dinsmoor accepts this (*HarvSt* Suppl. I 175; *AJA* LI (1947), 111, n. 14, 128, n. 93), thereby removing the very scanty literary evidence for his exact date. [43] Dinsmoor, *op. cit.* 163.

[44] *Ibid.* 164–165; *HarvSt* Suppl. I 176–180, in which he extends reverse rotation to 353–2; *AJA* LI (1947), 111, n. 14.

[45] *Chronology of Hellenistic Athens* 36–42. [46] *Op. cit.* 165. [47] *Ibid.* 166–167.

Let us keep to the facts, tangled as they are. It certainly appears that the Opisthodomos was in use in the summer of 370.[56] The date when it finally went out of use is a good deal more uncertain now than it was when Dinsmoor wrote. He, with only the original fragment of II^2 1438 before him, most reasonably concluded from ll. 47–48 (old text), which appeared to come from a Chalkotheke list, that the objects previously stored in the Opisthodomos were now in the Chalkotheke, which would suggest that the final abandonment took place before about 351. But the new fragment has unexpectedly complicated matters, since it shows (Face b, 22 ff.) these objects prefaced by the words ἐν τῶι ὀπισθοδόμωι. If this is *the* Opisthodomos, we can only say that the fire was between 385 (for both boards of *tamiai* were involved) and 354,[57] since we will have to assume that it was rebuilt after the fire. But since Face B goes on with objects which certainly seem to belong to the Chalkotheke, it is tempting to assume that the reference is to the *opisthodomos* of the Chalkotheke.[58] The coincidence that objects should be transferred from the Opisthodomos to the *opisthodomos* of the Chalkotheke makes it necessary to face the possibility that the reference in 370 is also to the *opisthodomos* of the Chalkotheke, though it certainly does not give this impression. If this is so, the burning may be inferred to have been earlier than 370. If, however, the references are to different places, we could vary Dinsmoor's view slightly. He, having burnt the Opisthodomos in 377, rebuilds it temporarily and keeps it in use for about twenty years.[59] On his solution of the topographical problem, which treats the Opisthodomos as part of the *poros* temple, it is rather more probable that its burning immediately caused its final abandonment and is to be dated between 370 and 354.

---

[48] *Treasurers of Athena* 118, n. 1.

[49] *Op. cit.* 167, n. 6.

[50] *Ibid.* 167, n. 1.

[51] *Op. cit.* 184.

[52] *HarvSt* Suppl. I 392.

[53] The *editio minor* layout is misleading. Mr. Woodward tells me that he feels that a line of about sixty-six letters should provide adequate restorations.

[54] *Op. cit.* 168.

[55] *Ibid.* 168, l. 12.

[56] II^2 1424a. 115–122.

[57] Kahle's date for the speech *Against Timokrates*, which I accept.

[58] *Cf.* Ferguson, *op. cit.* 111, n. 5; Vallois, *L'architecture Hellénique à Délos* 57 n. 1. There is a hitherto unnoticed topographical problem here, for no one will believe that the building we now think of as the Chalkotheke could ever have had an *opisthodomos*, little though the evidence is for its interior plan. See Stevens, *Hesperia* Suppl. III 7–19.

It is therefore possible, though quite uncertain, that Johnson's instinct was right, that the defalcation of the *tamiai* was the occasion of II^{2} 216–217, and that the public interest thereby attracted to treasure-administration was responsible for the activity of Androtion. As Demosthenes points out,[60] and his quotation from Androtion [61] makes clear, the practical Androtion always saw the temple-treasures as an iron-reserve, something which could be turned into money, if it should be necessary. He was, if only in theory, the predecessor of Lachares, and of course the same idea was always inherent in the policy of Pericles, though Demosthenes prefers to ignore this. An essential preparation for such coining was the melting of unwieldy crowns of varying weights into objects of stock size, which could easily be checked and coined. He was certainly serving the immediate interests of Athens, however deficient he may have been in his respect for the outward signs of her glory and reputation. Demosthenes, however, assailed him for this defect, and found in it a congenial theme. I suspect that Demosthenes' words were still ringing in Androtion's ears in 346. When one comes from the reading of the speech *Against Androtion* to *IG* II^{2} 212, Androtion's only surviving decree, one almost detects a wry tone in ll. 36–39, as he carefully drafts the honorary inscription for the crowns of the Bosporans, as if to show that he is not quite as insensitive to such things as Demosthenes might suggest.

XIV. *IG* II^{2} 135

It can, perhaps, not be seen from the photograph of this inscription in Svoronos, *Das Athener Nationalmuseum*, pl. CCXV, that the ethnic of Moschos is not Νασ̣[ιώτου], as Hiller suggested, but Ναυ[κρατίτου]. It can, however, be seen that Kirchner's statement about the spacing is incorrect. Only l. 3 is non-*stoichedon*, and the restoration of ll. 4–7 should be adjusted accordingly. The canting relief is a welcome change from the normal lack of imagination of the fourth century.

XV. *IG* II^{2} 452

One more link can be noted establishing this decree in 328–7 (*vide* Meritt, *AJP* LIX (1938), 499; Pritchett and Meritt, *Chronology of Hellenistic Athens* 2) and making it the earliest known which refers to *symproedroi*. The *proedros* from Antiochis (l. 10) beginning with Βουλ[can be identified with Βοῦλις Θοραιεύς, known from *AE* 1917, 41 to have been a member of the Council in this year.

XVI. *IG* II^{2} 23

As far as I know, Wilhelm's suggestion (*IG* II^{2} i. ii, p. 656) that II^{2} 52 joins this piece has never been withdrawn. There is no possibility of this.

II^{2} 23, horizontal chequer 0·016 m., vertical chequer 0·0148 m.
II^{2} 52, ,, ,, 0·0156 m., ,, ,, 0·0156 m.

---

[59] *Op. cit.* 169, 326.

[60] XXII 75; XXIV 183.

[61] XXII 48; XXIV 161.

XVII. *IG* II^2 66

Kirchner failed to notice that the pieces he published as fragments *a* and *b* of this inscription had already been joined by Walter to the fifth-century decree for Proxenides the Cnidian (*ATL* II, D 23, *SEG* X 108). The remaining fragment has its left edge clearly preserved and should be read

. ρι[- - - - - - - - - - - - - -]
νον τόν - - - - - - - - τ]
όν δῆμον[- - - - - - - - -]
Καφυᾶ κ]αὶ - - - - - - - - - ἐπει-]
δὴ καθηι[ρέθη - - - - - ἡ σ-]
τήλη ἀνα[γράψαι- - - - - - - -]

XVIII. *IG* II^2 205

Read l. 8. ʾΑ]ρισταῖο[ς] Φα̣λ̣[ηρεὺς
l. 10. . ς ʾΑριστύλλο Σ̣τ̣ειριε[ὺς

Since confusion of ο and ου is now attested for the inscription, the correct restoration in line 4 is probably Φ[ιλοιτίο]. This is nearer to Fourmont's reading in *IG* II^2 1747. 6, and is supported by a probable son in *Hesperia* XV 178, no. 25, line 6, where Φ[. . . .]τιος ʾΙων[ίδης] should be restored Φ[ιλοί]τιος.

XIX. *IG* II^2 221

The right margin is preserved. Lines 1–8 end eight letters earlier than is indicated in the *editio minor* and l. 9 overflows into a new l. 10, consisting merely of [τος]. There were presumably two columns of names.

XX. *IG* II^2 279

The right margin is preserved, and every line except the last ends five letters earlier than is indicated in the *editio minor.*

XXI. *IG* II^2 306

The left margin is preserved. At least two letters too many have been restored on the left in each line.

XXII. *IG* II^2 361

Contrary to the indications in the *editio minor*, the left margin is not preserved and the right margin is. Restore ἐπὶ in l. 1 and end it ʾΑκαμαν[τ-. Line 2 ends ʾΑντιφ[ῶν, l. 3 Θ[αργηλι-], l. 4 -τ[ηι τῆς πρυ-], l. 5 τ[ῶν προέδρων.

David M. Lewis

THE DATE OF *IG* V (2) 516 (*SIG*^{3} 800)[*]

Since Wilhelm published, in 1909,[1] his study of this inscription, scholars have unanimously accepted his conclusion that it belongs to the year A.D. 42. The purpose of this article is to examine the arguments both of Wilhelm and of others, notably von Premerstein,[2] who support his conclusion, and to consider the possibility of giving the inscription a different date.

The document in question is a decree of the Arcadian *polis* Lykosoura honouring Nikasippos, son of Philippos, and his wife Timasistrata, daughter of Onasikrates, for their various benefactions. In particular Nikasippos 'undertook the priesthood of Despoina during an Olympic year when no one was willing to come forward for appointment and there was no revenue for the mysteries. He paid money into the *fiscus* from his own private means (ἀπέδωκεν ἐκ τοῦ ἰδίου βίου τῶι φίσκωι). The following year, after the harvest had failed, Nikasippos undertook the priesthood with his wife Timasistrata at the wish of the Lykourasioi . . .' The decree is dated by this second priesthood of Nikasippos (ἐπὶ ἱερέος τᾶς Δεσποίνας τὸ β′ Νικασίππου τοῦ Φιλίππου), by the ἐπιμεληταί, and by the formula ἔτους λ′ καὶ β′ κατὰ τὸν Σεβαστόν. Wilhelm's arguments for assigning it to A.D. 42 can be classed as: (i) historical; (ii) chronological; (iii) epigraphical and stylistic; (iv) prosopographical. Premerstein adds (v) further historical arguments.

(i)

Before discussing the Lykosoura inscription, Wilhelm had dealt with a series of Thessalian documents which are doubly dated by the years of the emperor Claudius and by a numerical year, from which it is seen that a new era began in Thessaly in A.D. 10/11. He then found that the present inscription could be dated by the same era with apparent plausibility, the thirty-second year being A.D. 42, which followed an Olympic year; but he admitted [3] the difficulty of explaining why Lykosoura, out of the whole of the Peloponnese, should have used the Thessalian dating-system. For no other reason than to find a Peloponnesian parallel, he suggested, quite gratuitously, that Methana also adopted the Thessalian era.

A few details of the history of the Thessalian League during the reign of Augustus are known from various sources. Riots occurred; ambassadors were dispatched to Rome; Tiberius spoke before the emperor on behalf of the Thessalians.[4] There was, however, no known event in the Peloponnese which can be connected either with events in Thessaly or with the inauguration of a new era in A.D. 10/11. Arcadia, in fact, had its own history, separate from that of Thessaly. Julius Caesar had granted the Thessalians *libertas* after the battle of Pharsalos, and there is no reason to believe that their status was immediately affected by the establishment of the Principate.[5] The Arcadians, on the other hand, with the exception of Mantinea, had fought for Antony against Octavian.[6]

---

[*] I wish to acknowledge here my special indebtedness to Professor A. H. M. Jones and Dr. M. N. Tod for their kind interest and encouragement, and for a number of fruitful suggestions and important corrections. For remaining errors they are in no way responsible.

[1] A. Wilhelm *Beiträge zur griechischen Inschriftenkunde* (Wien, 1909), 153–7, 311–12.

[2] A. von Premerstein, *Jahreshefte des österreichischen archäologischen Institutes* XV (1912), 200 ff.; *cf.* also *SIG*^{3} 800.

[3] *Op. cit.* 156. '*Leider muss ich bekennen, dass dieser mir wenigstens bisher dunkel geblieben ist*'.

[4] Plutarch, *Mor.* 815D; *IG* IX (2) 520; Suetonius, *Tiberius* 8.

[5] Appian, *BC* II 88; Plutarch, *Caes.* 48; *cf.* A. H. M. Jones, *The Greek City* 324, n. 63.

[6] Pausanias IV 31. 1, VIII 8. 12, 46. 1.

After the battle of Actium, Octavian dealt with the Greek cities according to their deserts.[7] Some, for example Sparta, were favourably treated, whilst others were punished for their adherence to the cause of Antony. An outstanding example of the latter was Athens. In addition to Athens, there is the known case of Tegea, from which Octavian took away the famous cult-statue of Athena Alea, an act symbolising the city's loss of its independence.[8] The fact that it was punished and its status re-defined was reflected in its use of the Actian era for dating purposes.[9] Tegea, however, was not the only Arcadian city which fought for Antony, and it must not be supposed that Octavian singled out Tegea and left the other offending cities of Arcadia unpunished. The cities of Messenia, which had also sided with Antony, were punished at the same time.[10] Kardamyle, Thouria, and Korone were handed over to the Spartans, and Korone continued to date by the Actian era even after it had apparently been freed from Sparta some time before the middle of the third century A.D.[11] Further employment of the Actian era in Messenia occurs in four, perhaps even six, other inscriptions, one from the temple of Artemis Limnatis,[12] two from Messene, one from Korone, one from Pherai, and one of unknown provenance.[13]

From this evidence it is clear that the offending cities of Arcadia and Messenia were dealt with by Octavian soon after his victory, and there is no cause to dissociate Lykosoura from the events of that date. The historical setting demands that Lykosoura should employ the Actian era. In earlier times, it is true, we should not expect necessarily to find uniformity throughout the whole of Arcadia or Messenia. 'The Greeks', it has been rightly observed, 'clung tenaciously to their traditions of local independence'.[14] This *caveat*, however, is irrelevant for the Imperial period in the matter of eras, because the majority of the cities were not left to work out their own administration individually, but received the system imposed by Octavian from above. Discrepancies, if they existed, were rather between province and province, not between city and city in smaller districts, or else they were the result of later events like those which occurred in Thessaly.

(ii)

The main objection to this interpretation of the known facts is stated categorically by Wilhelm, accepting arguments put forward by Kubitschek: 'das 32. Jahr der aktischen Ära folgt keinem Olympiadenjahr'. Premerstein supports this objection, and points out that, given 32 B.C. (end of September)–31 B.C. (end of September) as the first year of the Actian era in a place where the year (as in Arcadia) was reckoned from one autumn equinox to the next, the 31st year of the era would have fallen between the end of September 2 B.C. and the end of September 1 B.C.[15] It is true that this was not an Olympic year. It is also true that the first year of the Actian era in Macedonia and certain places in Asia Minor ran from 32 to 31 B.C.[16]; it must not, however, be assumed, without consideration of further evidence, that the same is true of the Actian era in Peloponnese.

---

[7] D.C. LI 2. 1, 4. 1,

[8] Pausanias VIII 46. 1.

[9] The Tegean inscriptions which are dated from Actium exclusively are *IG* V (2) 49 (no mention of the later Hadrianic era) and probably 84. Both the Actian and Hadrianic eras are used *ibid* 51. The present writer cannot agree with the remark of Jones (*op. cit.* 117) that 'new eras celebrate the beginning of freedom'. The Macedonian and Corinthian eras marked the beginning of a new Roman régime, as did the Actian era in the Peloponnese. For the Macedonian and Actian eras, *cf.* W. Kubitschek, *Grundriss der antiken Zeitrechnung* (München, 1928), 74–5. Kubitschek does not, however, mention the Peloponnesian inscriptions.

[10] Bogud of Mauretania had held Methone for Antony and was killed there when the place was taken by Agrippa. D.C. L 11. 3, Porphyrius, *de abstinentia* I 25, Orosius VI 19. 6.

[11] *IG* V (1) 1398, dated ἔτους σοζʹ· The frequency of the appearance of the name Aurelius makes it obvious that the date is later than A.D. 212, and that the so-called Corinthian era of 146 B.C. is therefore out of the question. On the other hand, the 277th year of the Thessalian era would bring the date down as far as A.D. 286/7, and it is extremely unlikely that the *ephebeia* of Korone could have flourished, as the inscription describes, at so late a date and in such unsettled times. The commencement of the era is clearly Actium.

For Spartan ownership of the towns mentioned: Pausanias III 26. 7, IV 31. 1, *HN*^{2} 433, *IG* V (1) 34, 36, 44.

[12] *IG* V (1) 1375, dated ἔτους ϙμθʹ. For the same reasons as those given in note 11, this, like the date in the Korone inscription, must refer to the Actian era.

[13] *Ibid.* 1468, 1469, 1392(?), 1359 and 1346(?). For the probable attribution of 1346 to a Messenian city, *cf.* A. M. Woodward, *Historia* I (1950), 632–3. The fate of Pherai after Actium was, in the words of Pausanias (IV 30. 2), συντελεῖν . . . . ἐς τὸ Λακωνικόν.

[14] M. N. Tod, *BSA* XXIII (1918–19), 213 (*à propos* the use of different eras).

Fortunately it is possible to use another point of departure for calculating this date. *IG* V (2) 51, a Tegean document, is dated by two eras, the Actian and the Hadrianic by which the Actian was eventually superseded. From this inscription we learn that the 181st year of the Actian era was also the 27th year of the Hadrianic. The Hadrianic era at Tegea began with Hadrian's first visit to Greece,[17] and its inauguration can be dated more precisely to the time of his visit to the Peloponnese in the winter of A.D. 124/5. The emperor was initiated at the Eleusinian mysteries during Boedromion A.D. 124, and even if he left Athens immediately afterwards it cannot be doubted that he did not reach Arcadia before the autumn equinox which marked the end of the Arcadian year A.D. 123/4.[18] Consequently, the first year of the Hadrianic era at Tegea was the Arcadian year A.D. 124/5.[19] On this calculation the 27th year of the era, which was also the 181st of the Actian era, was A.D. 150/1. The first year of the Actian era therefore, for Tegea, and presumably for the rest of Arcadia and Messenia, was 31/0 B.C.

This conclusion can be compared with the evidence of an Isthmian victor-list doubly dated by the Roman consuls and a reference to the victory at Actium.[20] Here the 33rd year of the Actian era is A.D. 3, *i.e.* the year which, in Arcadia, ran from the end of September A.D. 2 to the following September. The first year of the Isthmian Caesarea was thus likewise 31/0 B.C.

The 31st year of the Actian era in Arcadia was 1 B.C./A.D. 1, and the Olympic festival of late summer A.D. 1 was celebrated towards the end of the Arcadian year. It coincided with the celebration of the mysteries of Despoina in Lykosoura, and it was then that the revenues of Lykosoura failed. At the beginning of the next year, A.D. 1/2, Nikasippos was asked to act as ἱερεύς for the second time in succession, after the failure of the harvest (ἀφορίας καρπῶν γενομένας).

(iii)

Epigraphical and stylistic considerations cannot give us more than an approximate date. It is only necessary that there should be no indications strongly disagreeing with the date suggested for the inscription. Dialect forms (τᾶς Δεσποίνας, ἐπιμελητᾶν, ἁγησάμενος, etc.), the spelling of Κορειτήαις, γείνεσθαι, γεινώσκοντας, the complete absence of Roman names, even from the family of the benefactor Nikasippos, who is described as being ἀπὸ προγόνων καλῶν καὶ ἐνδόξων, the general way in which the letters are formed on the stone [21]—all these point to a date in the early Principate. The use of the expression κατὰ τὸν Σεβαστόν in the date-formula does not necessarily denote that Octavian had already adopted the title Augustus at the beginning of the era; it can be paralleled in other inscriptions, in which the νίκη at Actium is mentioned in the same phrase with Σεβαστός.[22]

---

[15] Wilhelm, *op. cit.* 153, J. W. Kubitschek, *Festschrift für H. Kiepert* (Berlin, 1898), 351 ff., *id.*, *RE* I 651, Premerstein, *loc. cit.* 201–2.

[16] Tod, *loc. cit.* 208, 212–13.

[17] Mentioned in the inscription quoted. *Cf.* also *IG* V (2) 50, 52.

[18] In any case, Hadrian probably did not go straight to Arcadia, but called first at other places, *e.g.* Epidauros (*IG* IV^2 606), Argos (*BCH* LXVIII-LXIX (1944–5), 397–401), Nemea (Pausanias VI 16.4), Troizen (*IG* IV^1 758). *IG* IV^2 606, dated by the formula δημαρχικῆς ἐξουσίας τὸ η΄, ὕπατον τὸ γ΄, proves that Hadrian was honoured by Epidauros between 10th December A.D. 123 and 9th December A.D. 124. The honours recorded in this inscription can thus be dated more precisely to some time in October or November A.D. 124. Hiller's note (*IG* IV^2 *Prolegomena* xxxiii 36), stating that the first year of the Hadrianic era in Epidauros ran from September A.D. 123 to September A.D. 124, must therefore be corrected: it ran from A.D. 124 to A.D. 125. His restoration [δὲ ἔτους τεσσαρακοστοῦ], in *IG* IV^2 88, l. 22 must also be emended to [ἔτους τριακοστοῦ ὀγδόου] or [ἔτους τριακοστοῦ ἐνάτου], depending on whether the document was published before or after the end of the Epidaurian year in A.D. 163. *Cf.* also *Hermes* LXIV (1929), 66.

For the chronology of Hadrian's activities in Greece, *cf.* in particular W. Kolbe, *AM* XLVI (1921), 112 ff., P. Graindor, *Athènes sous Hadrien* (Cairo, 1934), 3–8; also P. Wolters, *AM* XXVIII (1903), 294, n. 1, J. Dürr, *Die Reisen des Kaisers Hadrian* (Wien, 1881), E. Kornemann, *Kaiser Hadrian* (Leipzig, 1905), 50–1, W. Weber, *Untersuchungen zur Geschichte des Kaisers Hadrianus* (Leipzig, 1907), 150 ff., esp. 180–91.

[19] Not A.D. 123/4, as Premerstein (*loc. cit.* 212–14) concluded, on the assumption that the Actian era began in 32/1 B.C. *Cf.* Kolbe, *loc. cit.* 115–16.

[20] *Corinth* VIII 1, 14; cf. *SEG* XI 61.

These considerations in general favour the date A.D. 1/2 quite as well as A.D. 42.

(iv)

In the present inscription one of the ἐπιμεληταί is Damyllos, son of Zeuxias. Wilhelm [23] adduces two other inscriptions of Lykosoura in which the name Damyllos appears, viz. *IG* V (2) 541 and 542. In each of these a Damyllos is priest of Despoina (the office held by Nikasippos in 1 B.C./A.D. 1 and A.D. 1/2 according to our calculations). The two inscriptions are on bases of statues, set up, presumably together, by the city of Megalopolis, and honouring C. Julius Kratinos and Julia Pantimia, son and daughter of Lakon and grandchildren of the famous Spartan C. Julius Eurykles. Wilhelm identifies this Damyllos, the priest, whose father's name is omitted, with Damyllos, son of Zeuxias, the ἐπιμελητής. He thinks that Damyllos was priest at a later date than he was ἐπιμελητής, and that by the time he became priest he was well enough known to be designated in an inscription without his father's name. He dates the statue bases to about the middle of the first century A.D., and places the Nikasippos document shortly before them in time.

This is an ingenious argument, but it has very little factual basis. In order to prove his case Wilhelm ought to have established (*a*) that the statue bases cannot belong to a date earlier in the first century; (*b*) that Damyllos the ἐπιμελητής was identical with Damyllos the priest of Despoina; and (*c*) that Damyllos did not, or could not, become priest many years after he was ἐπιμελητής. In view of Wilhelm's belief that the Thessalian era was known in Arcadia, these three assumptions take on an air of probability; but their value as historical evidence is slight, and they do not in themselves constitute an objection to the date suggested here. Even if it is granted that the ἐπιμελητής and the priest Damyllos are the same person, it is quite possible that a long interval elapsed between his tenure of these offices. He may have been *epimeletes* at the age of thirty, or even much younger still,[24] and priest at seventy. But in any case the statue bases of Kratinos and Pantimia can be dated earlier than Wilhelm suggests. Their brother Argolikos was old enough to be married by A.D. 33,[25] and they themselves were probably young when the people of Megalopolis honoured them, since if they had been married there would almost certainly have been some reference on the statue base at least to the husband of Pantimia. As it was, they were still clearly the children of Lakon, they had not yet embarked on their separate careers, and they were together honoured with statues in the temple of Despoina. Another son of Lakon, Spartiatikos, reached the height of a distinguished public career at Corinth early in the reign of Nero.[26] Even if he were only fifty years of age at the time—which was fairly young for a man of his importance in Corinth—he would have been born in the first years of the century.[27] From these considerations it seems likely that Kratinos and Pantimia were honoured together at Lykosoura at some time about A.D. 30. Thirty years, roughly speaking, elapsed between the tenure of the two offices of Damyllos, if indeed the same Damyllos held both offices.

---

[21] The use of ω, noted in *SIG*^{3} 800, can be paralleled in other inscriptions of Augustan date, e.g. *IG*^{2} II–III 3177, 3264, 4038, to mention only a few which occur most readily to mind. *Cf.* in general Wilhelm *op. cit.* 153–4.

[22] E.g. *IG* V (1) 1359 *A*. *Cf.* Tod, *loc. cit* 212–13.

[23] *Op. cit.* 154–6.

[24] Cn. Cornelius Pulcher of Epidauros had been gymnasiarch and *agoranomos* at the age of four (*IG* IV^2 652/3). In times of financial difficulty the main qualifications for many of the state *leitourgiai* were not of age, but of wealth; *cf.* S. Dow, *Hesperia*, Suppl. VIII (1949), 123–4.

[25] Tacitus, *Annals* VI 18. Wilhelm (*op. cit.* 156) gives the reference wrongly as VI 8.

(v)

The use of the word φίσκος in this inscription was fully discussed by Premerstein,[28] according to whom it bears the technical meaning of the Imperial chest into which went the revenue of Imperial provinces, as opposed to the *aerarium populi Romani* in which the revenue collected by the proconsuls from senatorial provinces resided. Since the Achaean province was senatorial from 27 B.C. to A.D. 14 and Imperial from A.D. 15 to A.D. 44, Premerstein concluded that the inscription must belong to the latter period, and that within those limits the only era which could have been employed for dating was the Thessalian, beginning in A.D. 10/11.

In a recent article [29] Professor A. H. M. Jones has traced the history of the word *fiscus*, in its various meanings, from late Republican times into the Empire. From his presentation and discussion of the evidence there emerges the incontrovertible fact that during the reign of Augustus there existed provincial *fisci* (as in the late Republic) for senatorial as well as for Imperial provinces. Seneca is the earliest literary source in which *fiscus* bears the technical sense of the Imperial treasury.[30] On the assumption that the date of *IG* V (2) 516 is A.D. 42, Jones quotes its use of φίσκος as an example of this technical sense; but he envisages the possibility that the word 'may . . . denote the local provincial "fiscus"'.[31] This latter interpretation would harmonise well with the arrangements which existed under Augustus—better, in fact, than with the Claudian period, in which the indications are that a certain amount of financial reorganisation took place.

Premerstein's arguments based upon his interpretation of ὁ φίσκος thus constitute no valid objection to the date already suggested for the inscription. In A.D. 1/2 Lykosoura was a tributary community in the senatorial province of Achaia, and owed money to the provincial *fiscus*.[32]

To sum up, the existence of an Actian era in Arcadia and Messenia can be established from what is known of the history of the period around the battle of Actium, in view of the allegiance of the Arcadians and Messenians to Antony, and from Messenian and Arcadian inscriptions in which reference to the Actian era is certain. The Thessalian era was peculiar to Thessaly, and meant nothing to Arcadia. Various arguments, chronological, epigraphical, stylistic, and prosopographical, which have been put forward from time to time against the use of the Actian era in Lykosoura, are seen on analysis to afford no disproof and even, at times, to lack verisimilitude in themselves. Finally, any argument based on tenuous hypotheses about the *fiscus* must be discounted: rather is it necessary to supplement what facts can with certainty be stated about the *fiscus* with the evidence contained in the Lykosoura inscription of A.D. 1/2.

---

[26] L. R. Taylor and A. B. West, *AJA* XXX (1926), 389 ff.; K. M. T. Chrimes, *Ancient Sparta* (Manchester, 1949), 183 and n. 6.

[27] For the date of birth of Spartiatikos, *cf.* Chrimes, *op. cit.* 185–7.

[28] *Loc. cit.* 202–5.

[29] *JRS* XI (1950), 22–9.

[30] Seneca, *de beneficiis* IV 39. 3, VII 6. 3.

[31] *Loc. cit.* 25.

[32] In a letter Professor Jones has suggested the possibility of an alternative interpretation, according to which φίσκος might be a very early use of the word meaning the emperor's financial department, including his private revenue: Lykosoura may have owed money to Augustus as Chios did, Josephus, *Ant. Jud.* XVI 2. 2.

The vanishing of the Thessalian era from at least Arcadia and Messenia in the Peloponnese makes it clear that Methana also dated by the Actian era. Therefore *IG* IV¹ 853, dated ἔτους β′ καὶ λ′, belongs to the same year as *IG* V (2) 516. In the year A.D. 1/2 Methana honoured a Corinthian, Lucius Licinius Anteros, for his generosity to the citizens when he visited Methana, and for his kind entertainment of the city's officials when they visited Corinth. It would be pertinent to ask what officials of Methana were doing in Corinth. It would not be difficult to guess the answer: they were probably asking for an audience with the proconsul in the hope of obtaining relief from financial burdens. At some time near the turn of the century Euphrosynos of Antigoneia went as ambassador to Rome, at his own cost, and was admitted to an audience in the senate. He 'was polite to the senate and brought not accusations against the proconsuls but their praise.' [33] In this sentence lurks the strong implication that other cities of Achaia were dissatisfied with the treatment which they were receiving at the hands of the provincial governors. The Lykosoura inscription fits well into this context. The combined evidence reveals that cities of the Peloponnese, especially of Arcadia, had begun by the beginning of the first century A.D. to experience the effects of their punishment after the battle of Actium. Their complaints evidently produced no improvement in Augustus' reign In A.D. 15 the provinces of Achaia and Macedonia, *onera deprecantis*, were transferred to the control of the emperor Tiberius.[34]

A. J. Gossage

---

[33] *IG* V (2) 268, ll. 29–30: προσηνὴς ἐγένετ[ο] καὶ τῆ θειοτ[άτ]ῃ συνκλήτῳ, μὴ κομίζων κατηγορίαν ἀν̣[θυ]π̣άτων ἀλλ' ἔπαινον.

[34] Tacitus, *Annals* I 76.

A GREEK *GUNNER'S MANUAL*

INTRODUCTION

Recent years have seen the publication of two demotic Greek craft-manuals from the Middle Ages; or perhaps we might say from the Renaissance, for in both books the connections with Western European ideas and practices are clear. The first is a *Portolano*,[1] a mariner's guide in the tradition stretching back at least to Hellenistic times, and brought up to date by successive generations of sea-captains until its form was crystallized in sixteenth-century Venetian editions. The other is a *Shipwright's Manual* [2] dealing with the rigging of a sailing-ship, with the names and measures of all its sails and cordage.

To these is now added a third, a *Gunner's Manual*, shorter than the other texts, but in some ways more interesting. For although, as in the others, the material forces it to be repetitive and tabular, it is not so forbiddingly technical; and the beginning and the end have a greater freedom of matter which brings the language very close to the style and cadences of ordinary speech—a rarity in Renaissance Greek.

The manuscript in which it is found is catalogued as number 23 of the collection once formed by Archbishop Laud, and now in the Bodleian Library. The paper is uniform throughout, and the contents are as follows:

(i) foll. 1r–26r, A *Shipwright's Manual*. I hope to deal on another occasion with its relationship to the texts used by Delatte. The work is very corrupt and presents great difficulties. At the beginning are the words: ‘κύριε κατευόδωνε τὸν δοῦλόν σου Νικόλαον Σκούρα’.

(ii) foll. 26v–38r. A translation of the *Shipwright's Manual* into Italian, written in Greek characters. This is the only example I know of such transliteration in a long text. It led Coxe, in his catalogue of the Bodleian Greek manuscripts, to surmise wrongly that the work was probably in a Calabrian dialect of Greek. Some short snatches of Italian in Greek script are known elsewhere, the longest running to some twenty lines.[3] Here it is certain that the Italian is a translation of the Greek, and not *vice versa*. The opening of the Greek version is a mutilated form of part of the published Viennese text, and the Italian follows both these mutilations and the big lacuna represented by the empty leaves 18v–19r.

Both Greek and Italian are in the same hand, and at the end of the translation is: ‘τέλος καὶ τῷ θεῷ δόξα Νικολάου Σκούρα’.

(iii) foll. 38v–44v. The *Gunner's Manual*. The prologue (38v–40r) is written in a rough, uncultivated hand; the rest in a style which presents a curious suggestion of Italian. It is a regular and practised script, but has almost no accentuation, and punctuation which bears no relation to the sense and must be entirely discounted; it consists mainly of a stop every two or three words and a double hyphen at the ends of many lines. There is no indication of author or scribe.

---

[1] A. Delatte, *Les portulans Grecs* (Liége, 1947).

[2] A. Delatte, *L'armement d'une caravelle grecque du XVI^e siècle* (Miscellanea Giovanni Mercati III 490–508 (Rome, 1946)).

[3] J. Young and P. H. Aitken, *Catalogue of the MSS. in the Library of the Hunterian Museum in the University of Glasgow* (Glasgow, 1908), 396.

On the last leaf a later hand has written some Latin tags, and Archbishop Laud's *ex libris*, dated 1625, is to be seen on the first page.

The handwritings, both of the *Shipwright's Manual* and of the prologue to the *Gunner's*, suggest the first half, and most probably the first quarter, of the sixteenth century. A scribe called Nicolaos Scouras 'surnamed by the Cretans Ambeloclados' wrote Codex Sinaiticus 574, a *menaeum* of 1465.[4] This gives a long, but not impossible, period before the likely date of the Laudian manuscript, and it may well be by the same scribe.

The great impression given by the language of the *Manual*, and especially by its rolling and uncompromising opening, is that of an Italianate dialect of Greek. Italian words and phrases abound. But this is common, and may be ascribed largely to the lack of a Greek technical vocabulary for the subject dealt with, as in the *Shipwright's Manual* and the notary's Greek of Cretan wills.[5] What is more important is the penetration of Italian into the very bones of the language, into the tiny particles which form so much of vocabulary. Three times the word for *or* becomes ὄ. This is the extreme instance, but foreign influence, and perhaps even foreign authorship, may be seen too in the general grammatical disintegration, which brings uncertainty of genders and agreements (κακκάβη-κακκάβι, πλέον as an indeclinable adjective, and so on), and loosens the whole texture of the narrative.

Such a deep penetration, combined with the subject-matter, suggests the jargon of the Stradiots, the mercenary soldiers of Venice in her Greek wars.[6] But if we except the bravos of *Stathis* and *Fortunatos*, whose part in the plot demanded that Greek should be their main language, we find that the Stradiot dialect, although full of Greek words, was always on a Venetian base. The dialect used in the *Manual* is, in a debased form, that of the Ionian islands, as is shown by the forms ἀπάνου, κάτου, ἀποκεῖ, etc. We may even say that there is a presumption in favour of Zacynthus, where the Italian influence on language seems to have been greater than in the other islands, where such basic words as *in* and *altro* are used in current speech, and where we find recorded forms (ἰντζίρκα, ἀλτελαρία, etc.) used in the *Manual*. But this conclusion may arise from the fact that the dialect of Zacynthus is rather more fortunately recorded than those of her neighbours, and it would be unwise to say that the work is definitely from there.

Whatever the dialect, it is clear that the *Gunner's Manual* was originally Italian, and has been translated. In some places Italian words have through inadvertence been left intact—'*tagliarlo*', '*da lire*'; and there are signs (they are recorded in the Glossary) that the language of the original was not only Italian, but the Venetian dialect of Italian. This may be only because of a Venetian influence on the technical vocabulary of gunnery, but some words seem to go further.

Our manuscript is not the actual translation, but is itself copied from a Greek text. This is shown by such corruptions as διὰ νὰ τά for δυνατά, and κι ἅμε for κιάρο. This text was in a bad state with, presumably, tears or stains which gave rise to the lacunas indicated in the copy.

---

[4] M. Vogel and V. Gardthausen, *Die griechischen Schreiber des Mittelalters und der Renaissance* (Leipzig, 1909), 456.

[5] Σ. Ξανθουδίδης, Κρητικὰ συμβόλαια εἰς τὴν Ἑνετοκρατίαν (Χριστιανικὴ Κρήτη I (1912), 1–288).

[6] For the Stradiots, see C. N. Sathas, *Documents inédits relatifs à l'histoire de la Grèce au Moyen Age*, vol. VIII (Paris, 1888). For their language, see especially 460–541 (the poems of Manoli Blessi), and a recent work, G. Sala, *La lingua degli Stradiotti nelle comedie e nelle poesie dialettali veneziane del sec.* XVI (Atti Ist. Ven. (Classe Sc. Mor. Lett.) CIX (1950–1), 141–188, CX (1951–2), 291–343), which has a good glossary.

After the prologue, with its legend of the discovery of gunpowder by the alchemist Negrobattoldo, the *Manual* follows the four great divisions of mediaeval artillery—mortars, cannon, culverins, and perriers or stone-shot cannon—and gives the amount of powder each type requires in action, and the rather larger amount needed for testing.

Mortars were short and of large bore, capable of firing very heavy lead shot. Culverins were long-barrelled and small-bored, intended for greater muzzle-velocity and accuracy. Cannon were a compromise between the two.

These three types were loaded with the aid of a charging-measure (κάτζα). This consisted of a cylinder at the end of a pole, the shape justifying its Lombard nickname of ' lantern '. The cylinder corresponded to the bore of the gun, so that it could be thrust up the barrel and the powder deposited. The depth of the measure was calculated as being so many times the width, *i.e.* as a certain number of ' calibres '.

Perrier-cannon fired stone balls for siege-work, with a much smaller charge. At the base of the barrel they had a powder-chamber which was narrower than the bore, so that the ordinary charging-measure could not be used. The *Manual* describes a method of using made-up charges in fitted cloth bags, and of sliding these charges up the barrel on a small trough (it must be remembered that the mouths of perrier-cannon could be up to a yard wide), and then out of the trough into the powder-chamber.

An appendix, rather mutilated, gives a method of refining saltpetre.

Where a copyist shows complete ignorance of spelling, accent, and punctuation, the apparatus can be confined to phonetic changes. The abbreviation for καί is written καί, κι, and κ', in accordance with modern usage. I have with some diffidence spelt μπάλλα, ντάννο, πάννα, etc., with double letters after the Italian model, while realising that if the model were Venetian a single consonant would be more appropriate.

MS. LAUD 23

38v Ἐτούτη ἔναι ἡ ἀληθινὴ ῥέγουλα τὴν ὁποίαν πᾶσα εἷς καὶ ἕκαστος ἠμπορεῖ νὰ ντήνε ντοπεράρῃ καὶ νὰ σερβίρεται, ὁποῖος ντελεττάρεται νὰ κάμνῃ τὴν τέχνη τοῦ λουμπαρδάρη· καὶ τὴν ὀρδινιὰ νὰ δώσῃ τὴν πούλβερη εἰσὲ ἅπασαν κομμάτι τῆς ἀλτελαρίας.

Ἐν πρώτοις νὰ προβάρῃ μὲ μπάλλα βολιμένια, καὶ μὲ μπάλλα σιδερένια, καὶ μὲ μπάλλα πέτρινη, καὶ νὰ δίνῃς τὸ δίκιο τους εἰς τὰ καμώματα τοῦ πελάγου, ἔτσι καὶ τῆς γῆς·[a] καὶ καθὼς εἶναι οἱ ἀλτελαρίες πλέο σίγουρα μίαν ἀπὸ τὴν ἄλλην.

Ὁ πρῶτος μάστορας ἐτούτης τὴ τέχνης τὸν ἐλέγανε μάστρο Νεγρομπαττόλντο, ὁποῖος
ἦτονε ἀρκιμίστας, καὶ ἐδούλευε δουλειὰ ψιλὴ εἰσὲ χρυσάφι καὶ εἰσὲ ἀσήμι. Καὶ
39R ἠθέλησε νὰ κάμῃ μίαν κου|βέρτα μαύρη ἀπάνου εἰσὲ χρυσάφι, εἰς τὴν ὁποίαν ἔβαλε
σαλιμίτριο καὶ τειάφη καὶ βολίμι, καὶ τὰ ἔβαλε ὅλα ἐτοῦτα εἰσὲ μίαν πινιάττα χαλκωματένια
καὶ τὴν ἔβαλε εἰς τὴν φωτιά. Καὶ ὡσὰ νὰ γροίκησε τὴν ζέσταν τῆς φωτιᾶς
ἐκτύπησε ὡσὰν ἐκτύπον μεγάλον, καὶ ἐκόπη. Καὶ ἠβλέποντας ἐτοῦτο ὁ αὐτὸς μάστορας,
ἔκαμε ἄλλην πινίαττα πλέο χοντρὴ, καὶ τῆς ἔβαλε καὶ μίαν πέτρα ἀποπάνου. Καὶ ἔβαλε
μέσα σαλμίτριο καὶ τειάφη καὶ κάρβουνα, καὶ τὰ ἐκοπάνισε πᾶσα ἕνα καὶ τὰ ἔβαλε εἰς τὴν
φωτιὰ κοντὰ εἰς ἕναν τοῖχο. Καὶ ἔδε ἄκουσε τὴν ζέστην ἐκτύπησε ἕναν ἐκτύπον παράξενο,
καὶ ἡ πέτρα ἔδωσε εἰς τὸν τοῖχο καὶ ἔκαμε μίαν τρούπα μεγάλην. Καὶ ἠβλέποντας
ἐτοῦτο, ὁ αὐτὸς μάστορας λέγει «καὶ ἐτοῦτο τὸ πρᾶμα ἠμπορεῖ νὰ κάμῃ μεγάλο ντάννο
39V εἰς τὰ τειχία», καὶ ἀρχίνισε νὰ ντὸ ξε|φανερώνῃ ἐτοῦτο τὸ μυστήριο. Καὶ ἀπὸ ἐτοῦτο
αὐξήνθη ἡ τέχνη τῶν λουμπαρδάρων εἰς τὸν ὁποῖον μόδον, ὅσον τούρα ἠθέλει γενέσται
μὲ πλέο τέχνη καὶ ὑψηλότητα.

Πᾶσα μπουμπαρδιέρης θέλει νὰ φοβᾶται καὶ νὰ ἀγαπᾶ τὸν Θεὸ ἀπάνου εἰσὲ ὅλα τὰ
πράματα, καὶ νὰ ἀγαπιέται μὲ ὅλους τοὺς ἀνθρώπους· διατὶ πάντα ἔναι ἐχθρὸς μὲ τοὺς
πλέο ἀνθρώπους καὶ πρέπει νὰ ἔχῃ καλὴν ψυχὴν καὶ νὰ κάνῃ καὶ ψυχὴ καὶ ἑτέρων
ἀνθρώπων. Καὶ δὲν πρέπει νὰ ἀφφιδάρεται εἰσὲ κανέναν ὁποὺ 'ν' ἂν τοῦ κοντεύῃ εἰς
τὴν ἀλτελαρίαν. Πρέπει νὰ ἠξεύρῃ νὰ διαβάζῃ καὶ νὰ γράφῃ, νὰ μοιράζῃ τοὺς
καιροὺς καὶ τοὺς τόπους, καὶ νὰ ἠξεύρῃ νὰ δίνῃ ὀρδινιὰ εἰς τὶς ῥεπάρες καὶ εἰς τὲς
μουράδες τῆς χώρας, καὶ ἕτερα πράματα ὁποὺ ἀκκαδέρουνε, νὰ βάλῃ τὴν ἀλτελαρία
40R ὁποῦ πρέπει εἰσὲ μίαν χώ|ρα. Καὶ πρέπει ἅπασα λουμπαρδάρης νὰ ἠξεύρῃ νὰ
γοβερνάρεται εἰς τὸ φαΐ του καὶ εἰς τὸ πιοτό του, ὅτι νὰ μὴν ἐμποδίζῃ τὴν ψυχή του.
Καὶ νὰ ἠξεύρῃς· καὶ ἡ τειάφη καὶ τὸ σαλιμίτριο δὲν ἔναι πολὺ δυνατὸ εἰς τὸ κεφάλιν τοῦ
ἀνθρώπου, καὶ κάνε ὅποτε θέλεις ἐσὺ νὰ δουλέψῃς εἰς τὴν αὐτὴν τέχνη. Καὶ μὴν πολὺ
τὴν δουλεύῃς, ἀλλὰ οὐδὲ ὀλίγα, μὰ ὀνεσταμέντε.

Νότα διὰ νὰ ξεύρῃ νὰ δώσῃ τὴν πρόβα πασανοῦ κομματίου τῆς ἀλτελαρίας ὁποὺ ἡ
μπάλλα του νά 'ναι ἀπὸ βολίμι καθάριο χωρὶς νά 'χῃ σίδερο· μέσα τῆς ὁποίας σόρτας ἡ
ἀλτελαρία ἡ καλύτερη νά 'ναι[b] ἀπὸ λίτρες δώδεκα καὶ κάτου ὣς λίτρα μία. Ἡ ὁποία
τῆς δίνει τόσην πόλβερη ὅσο βαρεῖ ἡ μπάλλα ἡ βολιβένια τοῦ πέζζου. Καὶ τὰ καμώματά
τους τὰ δοκιμάζουνε οἱ μπάλλες οἱ σιδερένιες οἱ ὁποῖες ζυάζουνε λίτρες ὀχτώ. Μὰ
εἰς τὴν πρόβα ὅλα βρίσκονται μέσα στὸ κομμάτι μπάλλες ἔξι τῆς πόλβερης, ὕστερα
40V ἀφόντις στοιβαχτῇ ἡ πόλβερη. Κ' εἰς τὰ καμώ|ματά τους νὰ τοὺς δίδῃ τόσην ὅσον
ζυάζει ἡ μπάλλα ἡ σιδερένια· ὅλες θέλεις εὑρεῖ μπάλλες τέσσερεις.

σάκρα ἀπὸ λίτρες δώδεκα	θέλουν πόλβερη λίτρες ὀχτώ.
ἀσπίδα ἀπὸ λίτρες δώδεκα	θέλουν πόλβερη λίτρες ὀχτώ.
φαλκόνια ἀπὸ λίτρες ἔξι	θέλουν πόλβερη λίτρες τέσσερεις.
φαλκονέττα ἀπὸ λίτρες τρεῖς	θέλουν πόλβερη λίτρες δύο.

---

[a] γῆς [ἔτζι καὶ εἰσὲ πόλεμο τῆς γῆς] καὶ.

[b] . . νὰ 'ναὶ [ἔξι] ἀπὸ . . .

MS. LAUD 23

38v This is the true method which may be adopted and found useful by each and every man who delights in the gunner's art; and the standard amount of powder which he should give to each piece of artillery.

Firstly to test them, with shot of lead, and iron, and stone; and to give them their correct charge for actions at sea and on land; and how some cannon are safer than others.

The first master of this art was called Master Negrobattoldo, who was an alchemist and did much subtle work upon gold and silver. And he wanted to make a black
39R covering upon gold, and for this purpose took saltpetre, and sulphur, and lead, and put them all in a brazen pot, and put it on the fire. As soon as it felt the heat of the fire it gave a loud bang, and burst. The master saw this and made another, stronger pot, and put a stone upon it. He put in saltpetre, and sulphur, and charcoal, and pounded them all, and placed it on the fire near a wall. As soon as it felt the heat, it gave a tremendous bang; the stone flew at the wall and made a big hole. Seeing this, the master said: 'This thing can make much havoc among walls', and he began to discover
39V the secret. From this grew the art of gunnery in such a way that it is still increasing in skill and subtlety.

Every gunner should fear and love God above all things and be at peace with all men. For he is always an enemy to most men, and so should have a good heart, and give heart to others. He should trust no man who comes near him at his guns. He should know how to read and write, and how to measure times and distances; and know how to look after the redoubts and walls of a town and other places that may be necessary,
40R and to set the artillery wherever in the town is appropriate. He should know how to be restrained in his food and his drink, so as to set no curb upon his spirit. And he should understand that sulphur and saltpetre have no strength like the mind of man.

Now do what you will to serve this art. Serve it not too much, not too little, but with sincerity.

A note from which a man may know how to test every piece of artillery, whose shot is of pure lead without iron. The best artillery of this class from 12 lbs down to 1 lb has given it (for testing) the same weight of powder as the lead shot of the piece. And in action, as much as the iron shots, which weigh eight lbs. In test, inside the piece
40V there are to be six calibres of powder after it has been rammed down. In action you should give as much as the iron shot weighs, which you will find to be four calibres.

Sakers of twelve pounds need eight pounds of powder.
Serpents of twelve pounds need eight pounds of powder.
Falcons of six pounds need four pounds of powder.
Falconets of three pounds need two pounds of powder.

῾Η αὐτὴ ἀλτελαρία εἶναι ἀπὸ κείνη ὁποὺ πεζάρει λίτρες χίλιες τριακόσιες σαράντα. Κ’ εἶναι κι ἀπὸ κείνη ὁποὺ ζυάζει λίτρες δύο χιλιάδες, καὶ δύο χιλιάδες ἑκατό, τὴν ὁποίαν ἠμπορεῖ νὰ τῆς δώσῃ πόλβερη λίτρες δέκα καὶ τὸν πιλιὸν ἀχαμνὸν νὰ τοὺς δώσῃ τὰ δύο τρίτα, ὡσὰν λέει ἀπάνου, τὶς κάτζες ῥάσες. Δίνει πιλιὸ δύναμη δὸς τὶς κάτζες[c] κουλούμες. Οἱ κάτζες τους θέλει νά ’ναι μακριὲς μπάλλες τέσσερεις κ’ ἕνα δάχτυλο περισσότερο, χωρὶς ἐκείνη ὁποὺ πάει καρφωμένη ἀπάνου στὸ μόδολο.

Κανόνια πᾶσα λοῆς εἰς τὴν πρόβα τους δίνουν τόσην πόλβερη ὅσον ζυάζει ἡ
μπάλλα ἡ σιδερένια. ῾Η καργαδοῦρά του μέσα στὸ κομμάτι θέλει νά ’ναι μπάλλες
41R τέσσερεις | ἥμισυ πόλβερη. Κ’ εἰς τὰ καμώματα κατὰ πῶς τὰ κάνουνε εἰς τὸ πέλαγος ἢ
εἰς τὴ γῆς, καὶ τοὺς δίνουν. Κατὰ ποῦ ’ναι τὰ κομμάτια πιγλιὸ δυνατά,[d] ἠμπορεῖ νὰ
τοὺς δώσῃ λίτρες σαράντα πόλβερη (τὴν ὁποία θέλεις εὑρεῖ μέσα στὸ κομμάτι, ἀφόντις
στοιβάξῃς τὴν πόλβερη, μπάλλες τρεῖς καὶ δύο τρίτα), γιατὶ ἀπερνοῦνε λίτρες τέσσερεις
χιλιάδες ὀχτακόσιες καὶ λίτρες πέντε χιλιάδες. Καὶ γι’ ἀχαμνὰ ζυάζουν ἰντζίρκα λίτρες
τρεῖς χιλιάδες ἐγνιακόσιες καὶ λίτρες τέσσερεις χιλιάδες καὶ λίτρες τέσσερεις χιλιάδες
διακόσιες. Εἰσὲ τοῦτα δίνουνε τὰ δύο τρίτα, τὰ ὁποῖα βρίσκουνε μπάλλες τρεῖς πόλβερη
ἀφόντις τήνε στοιβάξῃ.

Οἱ κάτζες τους θέλει νά ’ναι μακριὲς μπάλλες τρεῖς κ’ ἕνα δάκτυλο περισσότερο χωρὶς ἐκεῖνο ποὺ πάει καρφωμένο ἀπάνου στὸ μόδολο, καὶ τὰ δύο τρίτα.

κανόνι λιτρῶν δεκάξι θέλει πόλβερη λίτρες δέκα ὀγγίες ὀχτώ.
κανόνι λιτρῶν εἴκοσι θέλει πόλβερη λίτρες δεκατρεῖς ὀγγίες τέσσερεις.
κανόνι λιτρῶν τριάντα θελει πόλβερη λίτρες εἴκοσι.
κανόνι λιτρῶν σαράντα θέλει πόλβερη λίτρες εἴκοσι ἕξι ὀγγίες ὀχτώ.
κανόνι λιτρῶν πενῆντα θέλει πόλβερη λίτρες τριάντα τρεῖς ὀγγίες τέσσερεις.
κανόνι λιτρῶν ἑξῆντα θέλει πόλβερη λίτρες σαράντα.
κανόνι λιτρῶν ἐνενῆντα θέλει πόλβερη λίτρες ἑξῆντα.
κανόνι λιτρῶν ἑκατὸν θέλει πόλβερη λίτρες ἑξῆντα ἕξι ὀγγίες ὀχτώ.
κανόνι λιτρῶν ἑκατὸν εἴκοσι θέλει πόλβερη λίτρες ὀγδοῆντα. |

41V Κολομπρίνα πᾶσα λοῆς, ὁποὺ νὰ μὴν εἶναι σφορτζάδες, καὶ δίνουνε τους εἰς τὴν
πρόβα τόσην πόλβερη ὅσον βαρεῖ ἡ μπάλλα, κ’ ἡ καργαδοῦρά του θέλει νά ’ναι ἀπομέσα
μπάλλες τέσσερεις ἥμισυ. Καὶ εἰς τὴν φατζιὸν τοὺς δίνουνε τὰ τέσσερα πεντᾶτα ἀπὸ
κεῖνο ὁποὺ ζυάζει ἡ μπάλλα. ῾Οπού ’ναι ἀπὸ πᾶσαν διετζίνα[e] ὁποὺ πεζάρει ἡ μπάλλα
καὶ τοῦ δίνουν λίτρες ὀχτώ πόλβερη, καὶ πιγλιὸ καὶ λιγότερο ἀπὸ τοῦτο σεγοῦντο ὁπού
’ναι τὰ κομμάτια πιγλιὸ δυνατὰ ἕνα ἀπὸ τὸ ἄλλο καὶ πιλέο δὲ μπέλλα. Καὶ τοῦτο
στέκει εἰς τὸ μπράτζο τοῦ ἀνθρώπου, γιατὶ ὁ λουμπαρδέρης ὁποὺ θέλει νὰ ξεύρῃ νὰ
κάμῃ τὴν τέχνη μπεζουγνιάρει νὰ ξέρῃ νὰ γνωρίζῃ τὴν ἀλτελαρία. ῾Η ἀξιότητά του
ἔναι νὰ γνωρίζῃ τὴν πόλβερη ἂν εἶναι καλὴ ἢ κακή, κι ἂν εἶναι δυνατὴ ὂ *βεραψία*. Γιατὶ
εἶναι ἀπὸ τὰ κομμάτια, ἤγουν κολομπρίνες διαφορετικὲς εἰς τὸ χόντρωμα κ’ εἰς τὸ ζύγι.
᾿Ανάμεσα σ’ ἐκεῖνες εἶναι ποὺ πεζάρουν λίτρες ἕξι χιλιάδες ἑφτακόσιες, κ’ εἶναὶ ὁποὺ
πεζάρουν λίτρες ἑφτὰ χιλιάδες, κ’ εἶναὶ ποὺ πεζάρουν λίτρες ἐννέα χιλιάδες τετρακόσιες
πενῆντα. Κ’ ἡ πιγλιὸ δυνατὴ νὰ τῆς δώσῃς πιγλιὸ πόλβερη πιγλιὸ παρὰ ποὺ εἶναι τὰ
τέσσερα πεντᾶτα, κ’ οἱ πιλέο ἀχαμνὲς . . . . τὰ δύο κομμάτια νά ’ναι ἀχαμνὰ ἀπὸ τὰ
κανόνια. Οἱ κάτζες τους θέλει νά ’ναι μακριὲς μπάλλες τρεῖς καὶ δύο τρίτα τῆς μίας
42R μπάλλας κ’ ἕνα δάκτυλο πιγλιὸ, ἀπὸ τὸ πλατύ του εἰς τὰ ῥε|κιόνια.〈. .〉 θέλει νά ’ναι
μπάλλες τρεῖς λιγότερο ἕνα λιγάκι ὁποὺ πάει καρφωμένο ἀπάνου στὸ μοδέλλο. *Κι ἂν εἰς
τὴν ἄστα ἀπάνου μία λάντζα* καὶ τὸ ῥέστο, ἤγουν ἡ κάτζα ὁποὺ παίρνει τὴν πόλβερη,

---

[c] κάλτζες.
[d] διὰ νὰ τὰ.
[e] δουζίνα.

This artillery is of the class which weighs 1340 lbs. There are also those which weigh 2000 or 2100 lbs, to which one may give ten pounds of powder, or at least, as it says above, two-thirds of their shot, reckoned with level measures; or it gives more power if you load with heaped measures. Their measures should be four calibres and a fingersbreadth long, without the bit nailed above the cylinder.

Cannon of all types are given, for testing, as much powder as the weight of their iron 41R shot. The charge inside the piece should be $4\frac{1}{2}$ calibres of powder. And in action they load them according to whether it is on sea or on land. Where the pieces are stronger, you can give them 40 lbs of powder (which you will find to be $3\frac{2}{3}$ calibres inside the piece after the powder has been rammed) because they surpass 4800 lbs and 5000 lbs. And the weaker ones weigh about 3900 lbs and 4000 lbs and 4200 lbs. To these they give two-thirds, which is found to be three calibres of powder after ramming. Their measures should be, without the part nailed onto the cylinder, respectively three calibres and a fingersbreadth long, and two-thirds of this.

A 16 lb cannon needs ten pounds eight ounces of powder.
A 20 lb cannon needs thirteen pounds four ounces of powder.
A 30 lb cannon needs twenty pounds of powder.
A 40 lb cannon needs twenty-six pounds eight ounces of powder.
A 50 lb cannon needs thirty-three pounds four ounces of powder.
A 60 lb cannon needs forty pounds of powder.
A 90 lb cannon needs sixty pounds of powder.
A 100 lb cannon needs sixty-six pounds eight ounces of powder.
A 120 lb cannon needs eighty pounds of powder.

41V Culverins of all sorts, so as not to be strained, should be given for testing a shot's weight of powder, and the charge should come to $4\frac{1}{2}$ calibres inside the piece. And in action they give them $\frac{4}{5}$ of what the shot weighs; which is eight pounds of powder for every ten pounds' weight of shot, or more or less than this, according to whether one piece is stronger than the other, and of better quality. And this depends upon the man; for the gunner who wants to know how to perform his craft must know how to recognise a gun. His duty is to recognise if powder is good or bad, and if it is very strong or weak.

For these pieces, that is to say culverins, differ in thickness and weight. Among them are some that weigh 6,700 lbs, some 7,000 lbs, and some 9,450 lbs. And to the stronger you should give more powder than $\frac{4}{5}$, and to the weaker . . . two pieces, so as to be weaker than cannon. Their measures should be $3\frac{2}{3}$ calibres and a fingersbreadth long, 42R according to their width at the trunnions. ⟨For the weaker pieces, the measures⟩ should be three calibres long, less the little bit nailed onto the cylinder . . . and the remainder (the measure which takes the powder) should be of three calibres' breadth divided into five parts; and three of those parts would be a half charge when you load the culverin

θέλει νά ᾽ναι εἰς τὸ πλάτος ἀπὸ τὶς τρεῖς μπάλλες μοιρασμένη σὲ πέντε πάρτες, θέλει νά ᾽ναι οἱ τρεῖς πάρτες τὸ μισό, καργάροντας τὴν αὐτὴν κολομπρίνα εἰς τὴν πιλέο δυνατή, κι ἀπὸ ᾽κεῖ νὰ δώσῃς τίς κάτζες κουλούμες πόλβερη· κι ἂ δὲν εἶναι τόσον δυνατή, τῆς δίνεις τὶς κάτζες ῥάσες.

Τῶν μπάλλων.

κολομπρίνα λιτρῶν εἴκοσι θέλει πόλβερη λίτρες δεκάξι.
κολομπρίνα λιτρῶν τριάντα θέλει πόλβερη λίτρες εἰκοσιτέσσερεις.
κολομπρίνα λιτρῶν σαράντα θέλει πόλβερη λίτρες τριάντα δύο.
κολομπρίνα λιτρῶν πενῆντα θέλει πόλβερη λίτρες σαράντα.
κολομπρίνα λιτρῶν ἐνενῆντα θέλει πόλβερη λίτρες ἑβδομῆντα δύο.
κολομπρίνα λιτρῶν ἑκατὸν θέλει πόλβερη λίτρες ὀγδοῆντα.

Οἱ κάτζες τους θέλουν νά ᾽ναι μακριὲς μπάλλες τρεῖς καὶ δύο τρίτα ἀπὸ μία μπάλλα καὶ σ᾽ ἕνα δάκτυλο πιγλέο.

Ἡ κολομπρίνα τῶν λιτρῶν δεκατεσσάρων εἰς τὴν πρόβα τῆς δίδουνε[f] λίτρες
δεκοχτὼ πόλβερη, κ᾽ εἰς τὰ καμώματα τῆς δίνουνε τόσην πόλβερη ὅσον ζυάζει ἡ μπάλλα
42V ἡ σιδερένια καὶ πιλέο κάποιον τίποτις, γιατὶ εἶναι κομμάτια δυνατά, κ᾽ ἔ|χουν πιλέο
μέταλλο εἰς τὴν κουλάττα ὁποὺ δὲν εἶναι πλατειὰ ἡ μποῦκά τους. Κ᾽ ἠμπορεῖ νὰ τῆς
δώσῃ λίτρες δεκαπέντε καὶ δεκάξι πόλβερη εἰς τὰ καμώματα γιὰ νά ᾽ναι κομμάτια δυνατά.
Καὶ οἱ κάτζες τους θέλουν νά ᾽ναι μακριὲς μπάλλες τέσσερεις κ᾽ ἕνα δάκτυλο πιλέο.

Κανόνια τῶν περριέρων πᾶσα λοῆς· ὅτι ἂν εἶναι μπάλλες πέτρινες τοὺς δίνουνε
στὴν πρόβα τὸ τρίτο τῆς πόλβερης ἀπὸ κεῖνο ποὺ ζύαζει ἡ μπάλλα σὲ τοῦτα τὰ
κομμάτια ὁπού ᾽ναι καμαράδα, κ᾽ ἔτσι τοὺς δίνουνε κοντίνουα τὸ τρίτο τους εἰς τὰ
καμώματα κάποιον τίποτις λιγότερο γιὰ νὰ σιγουράρῃ τὰ κανόνια μὴ ⟨σπάσουν⟩.
Κάμε νὰ ξεύρῃς ὅτι τοῦτα τὰ κομμάτια εἶναι πιλέο φαστιδιόζα εἰς τὸ καργάρισμα παρὰ
ποὺ δὲν εἶναι ἐκεῖνα ὁπού ᾽ναι χωρὶς καμαράδα. Γιατὶ θέλοντας νὰ τὸ καργάρῃ μὲ τὴν
κάτζα δὲν ἠμπορεῖς νὰ τὸ καργάρῃς ἂ δὲν τοῦ βάλῃς τὴν πόλβερη εἰσὲ τρεῖς ὂ εἰσὲ
τέσσερεις βολές. Μὰ θέλοντας[g] νὰ κάμῃ πιλέο γλήγορα, μπιζογνιάρει νὰ κάμῃ ἕνα
μόδολο ξύλινο εἰς τὴν μέτρα τῆς μακροσύνης καὶ τῆς χοντροσύνης τῆς καμαράδας, νὰ
πάῃ λιντζιεραμέντε μέσα ὡς τὸ φούντι. Κι ἀπὸ τὴν τρυπουλίτζα ποὺ δίνει φωτιά, νὰ
βάλῃς τὸ στιλέττο, καὶ θέλεις γροικήσει ἂν εὕρῃς τὸ μόδολο ἂν εἶναι στὸ φούντι. Κι
ἀποκεῖ νὰ κάμῃς ἕνα σκαρτοῦτζο ἀπὸ φουστάγνιο ἢ ἀπὸ κανεβάτζα, καὶ νὰ ῥάψῃς τὸ
αὐτὸ σακκέττο ἀπάνου εἰς τὸ αὐτὸ μόδελλο, κι ἀποκεῖς ἐβγάλ᾽ το ὄξω καὶ γιομίσ᾽το
43R πόλβε|ρη. Κι ἀφόντις τὸ πεζάρῃς, ὅποτες θέλεις νὰ τὸ καργάρῃς τὸ κομμάτι, μπεζονιάρει
νά᾽χῃς μία σκαφιδόπουλο νὰ μπορῇς νὰ καργάρῃς τὸ κομμάτι ὁποὺ βάλεις τὸ σκαρτότζο[h]
στὸν κάβο μίας μεριᾶς ἀπάνου. Κι ἀποκεῖ κατζάρισε τὴν αὐτὴν σκαφέτα στὸ σέγνιο νὰ
τοκκάρῃ εἰς τὴν κάμαρα, κι ἀποκεῖ μὲ τὸν στοιβαδόρον νὰ κατζάρῃς τὸ σκαρτότζο εἰς
τὴν κάμαρα. Κι ἂν εἶσαι γιὰ νὰ σύρῃς εἰς ἐκεῖνον τὸν τράττον ἠμπορεῖς νὰ δώκῃς ἕνα
κοκόνι ἁπλὸ[i] ἀπὸ ξύλο . . . δος . . . τὸ ὁποῖο τὸ θέλεις γιομίσει εἰς τὴν ἄκρα μίας
λάντζας. Καὶ θέλεις τὸ βάλῃς εἰς τὴν μποῦκα τῆς καμάρας, καὶ μὲ τὸ στοιβαδόρο του
νὰ τοῦ δώσῃς μέσα νὰ φιλήσῃ στὴν μποῦκα νὰ μὴν ἀβαντζάρῃ τίποτις ἀπόξω. Κι ἂ
δὲν θέλεις νὰ σύρῃς εἰς ἐκεῖνον τὸν καιρὸν, κι ἂ[j] θέλεις ν᾽ ἀφήσῃς τὸ κομμάτι καργάδο, μὴν
δώκῃς τὸ καλκοῦνι τὸ ξύλινο, μὰ κάμε ἕνα καλὸ μποτόνι ἀπὸ σφιλάτζα νὰ πάῃ καλὰ
σετάδο μέσα, καὶ μὲ μίαν μανοβέλλα νὰ τοῦ δώσῃς πὲρ φόρτζα. Καὶ τοῦτο τὸ κάνουνε

---

[f] διδουνανε. [g] θέλονται. [h] τόσο καρτότζο. [i] απαλο. [j] ἂ [δὲν] θέλεις.

at full strength, and you should load with heaped measures from that mark: or with level measures if not so strong.[7]

A 20 lb culverin needs 16 lbs of powder.
A 30 lb culverin needs 24 lbs of powder.
A 40 lb culverin needs 32 lbs of powder.
A 50 lb culverin needs 40 lbs of powder.
A 90 lb culverin needs 72 lbs of powder.
A 100 lb culverin needs 80 lbs of powder.

The measures should be $3\frac{2}{3}$ calibres and a fingersbreadth long.

A fourteen-pound culverin is given for testing eighteen pounds of powder, and in
action they give it as much powder as the iron shot weighs, and a little more besides,
42v because they are strong pieces, and have more metal at the base of the barrel, whereas
the mouth is small. They can be given fifteen and sixteen pounds of powder in action
to be powerful pieces. Their measures should be four calibres and a fingersbreadth long.

Perrier-cannon of all types: when the shot is of stone, they give for testing a third of the shot's weight of powder, in these pieces where there is a powder-chamber. And in action, in the same way they give them a little less than a third, so as to make certain that the pieces do not burst. Note that these pieces are more difficult to load than those without powder-chambers. Because when you want to load them with the measure you cannot, unless you put the powder in in three or four doses. If you want to load more quickly you must make a wooden cylinder of the length and bore of the chamber, so that it will go easily in to the very end. Put your stiletto in through the fire-vent, and you will be able to tell, if you find the cylinder, if it is at the end. Then make a roll of fustian

or canvas and sow it into a bag on the cylinder. Then take the cylinder out and fill the
43r bag with powder. After you have weighed it, whenever you want to load the piece, you
must have a little trough; and for loading you put the roll upon the hollow of one side
and push the trough to the point where it touches the chamber. Then, with the ramrod,
push the roll into the chamber. If you are to fire at that moment, you can put in a
simple wooden stopper . . . . which you should fill at the end of a lance. You should
place it at the mouth of the chamber, and with the ramrod push it in to lie flush with
the mouth and not project at all. If you do not want to fire immediately, but to leave
the piece loaded, do not put in the wooden stopper, but make a good bunch of string-waste to go well inside, and push it in firmly with a lever. This is done because if the
powder should happen to get wet, you cannot get it out unless you have an auger and

---

[7] The idea seems to be that the same measure may be used for weak and strong culverins. For weak pieces one measure-full of three calibres is used: for strong pieces two part-measures are used, each of three-fifths of three calibres, altogether $3\frac{3}{5}$ calibres. With heaped measures this is equivalent to the $3\frac{2}{3}$ and a fingersbreadth mentioned above.

γιατὶ ἂν ἡ πόλβερη θέλει ἔρθει νὰ βραχῇ, δὲ θέλεις ἠμπορεῖ νὰ τὴ βγάλῃς ὄξω τὴν
πόλβερη ἂν ἐσὺ δὲν ἔχεις μίαν ἀρίδαν καὶ ἕνα σκαρπέλλο τόσο μακρὺ ὁποὺ ν' ἀβαντζάρῃ
ὄξω ἀπὸ τὴν μποῦκα τοῦ κομματιοῦ, νὰ σιδερώσῃς τὸ καλκοῦνι εἰσὲ πιλέο τόπους κι
ἀπεκεῖ μὲ τὸ σκαρπέλλο ταγιάρλο ἀπολίγο ἀπολίγο. Τοῦτο τὸ κάνουνε μὲ περίκολο. Κι
43V ἀποκεῖ ἔβγαλε | ὄξω τὴν πούλβερη, βάλ' την νὰ στεγνώσῃ κι ἀπεκεῖ ματαγύρισε καργαριστὸ
τὴν λουμπάρδα σου μὲ πούλβερη καλὰ στεγνή. Μὰ τὸ καλκοῦνι τὸ βάνουνε γιατὶ
κατζάρει πιγλιὸ δυνατὰ τὴν μπάλλα. Θέλοντας νὰ καργάρῃς τὶς λουμπάρδες περριέρες,

κανόνι περριέρα λιτρῶν δέκα θέλει πούλβερη λίτρες τρεῖς ὀγγίες τέσσερεις.
κανόνι περριέρα λιτρῶν εἴκοσι θέλει πόλβερη λίτρες ἕξι ὀγγίες ὀχτώ.
κανόνι περριέρα λιτρῶν τριάντα θέλει πόλβερη λίτρες δέκα.
κανόνι περριέρα ντὰ λίρε σαρανταπέντε θέλει πόλβερη λίτρες δεκαπέντε.
κανὸν περριέρα ντὰ λίρε ἑξῆντα θέλει πόλβερη λίτρες εἴκοσι.
κανὸν περριέρα ντὰ λίρε ἑκατὸ θέλει πόλβερη λίτρες τριαντατρεῖς ὀγγίες 4.
κανὸν περριέρα ντὰ λίρε ἑκατὸν πενῆντα θέλει πόλβερη λίτρες 42 ὀγγίες 6.
κανὸν περριὲρ ντὰ λίρε διακόσιες θέλει πόλβερη λίτρες πενῆντα ἕξι ὀγγίες 8.
κανὸν περριέρα ντὰ λίρε διακόσιες πενῆντα θέλει πόλβερη λίτρες ἑβδομῆντα.

Λὶ κανόνι περριέρε ὡσὰν ἀπερνάει λίτρες ἑκατὸ δὲ μπάλλα καλάρουν πέντε τὰ ἑκατά.

Ἂ θέλει νὰ φινάρῃ σαλμίτριο χοντρό

Θέλεις νὰ πάρῃς ἕνα νερὸ βρασμένο, νερὸ τῆς γῆς. Τὰ αὐτὰ σαλμίτρια, ἂν θέλεις νὰ
τὰ φινάρῃς, τοὺς δίνεις τόσο νερὸ ὅσον ἔναι τὸ σαλμίτριο καὶ τὸ βάνεις εἰσὲ μίαν κόνκα ἢ
44R κακκάβη καθάρια στὴ φωτιά. Καὶ τοῦ | βάνεις κάμποση στάχτη ποὺ νά 'ναι ὄμορφη καὶ
μπονάμο. Ἂν ἤθελες βάλῃς λίτρες δέκα σαλμίτριο, τοῦ βάνεις δύο κουταλιὲς στάχτη,
καὶ κάμε το νὰ βράσῃ καλά. Κι ἀποκεῖς ξάφρισ' το καλὰ ὥστε ποὺ κάνει ἀφρὸν, κι
ἀποκεῖς ἐβγάλ' το ἀπὸ τὴ φωτιὰ καὶ βάνεις τὸ κακκάβι . . . . τόσο ὅτι τὸ νερὸ νὰ μὴν
ἠμπορῇ νὰ πάῃ ὄξω. Κι ἀποκεῖ . . . . μὲ κάμποσο νερὸ κρύο δύο ὂ τρεῖς βολὲς μὲ τὸ
χέρι, καὶ νὰ τ' ἀφήσῃς νὰ ξεκαθαρίσῃ κιάρο[k] ἀττόρνο τὸ νερό. Καὶ θέλεις ἰδεῖ ποὺ θέλει
κάμει στὸ μόδο σὰν ἕναν σπάγον ἀττόρνο τοῦ κακκαβιοῦ, καὶ τοῦτο εἶναι τὸ δείξιμο νὰ
μπορῇς νὰ τὸ χύσῃς ὄξω ἀγάλι ἀγάλι νὰ μὴν θολώσῃ. Ἀφόντις τὸ ἀδειάσῃς ὄξω τὸ
καθάριο, τὸ φοντάκιο νὰ τὸ βάλῃς εἰσὲ ἄλλο τίποτις, κι ἀποκεῖς ἄφσ' το ἔτσι ὢς δύο
ἡμέρες καὶ δύο νύκτες νά 'ναι . . . . κι ἀποκεῖ ἀδείασ' το ὄξω τὸ νερὸ κι ἀφής το νὰ
στραγγίξῃ καλὰ ὄξω ὥστε ποὺ νὰ μὴν στάζῃ πλέο. Κι ἀποκεῖ νὰ βάλῃς ἐκεῖνο τὸ νερὸ
εἰς τὴ φωτιὰ νὰ βράσῃ τόσο ὁποὺ νὰ σοῦ δώσῃ τὸ σημάδι ὅτι νά 'ναι καλὰ βρασμένο,
τὸ ὁποῖο σεγνιάλο τὸ βάνεις[l] τὴν ποῦντα μίας βέργας νὰ σταθῇ μέσα εἰς τὸ νερὸ, καὶ τὸ
θέλει κάμῃ νὰ στάξῃ ἀπάνου εἰς ἕνα μαχαῖρι ποὺ νά 'ναι κρύο. Κι ἂν ἰδῇς κ' ἐκείνη ἡ
σταλαματιὰ . . . . ἂ σηκώνῃς τὸ κακκάβι ἀπὸ τὴ φωτιά. Καὶ βάλε τὸ κακκάβι ν'
ἀκουμπήσῃ κι ἄφσ' το νὰ ξεκαθαρίσῃ. Κι ἂν ἔχῃ ἁλάτι μέσα θέλει κάμῃ μία πάννα
ἀποπάνου, καὶ τοῦτο ἔναι τὸ ἁλάτι. Μπεζονιάρει, μὲ μίαν κάτζαν ὁποὺ ξαφροῦνε, νὰ
τὴ βγάλῃς ὄξω καὶ ἔτσι θέλεις κάμῃς δύο ὂ τρεῖς βολές. Κι ἀποκεῖ ν' ἀδειάσῃς ὄξω τὸ
44V νερὸ καὶ νὰ τὴν ἀφήσῃς . . . . μα νὰ ξεύρῃς ὅτι τοῦτο τὸ σαλμίτριο τ' ἐκείνης | τῆς
βράσης τὸ βγάνουνε ὄξω τὸ ἁλάτι δὲν θέλει 'ναι καλὸ περφεττίσσιμο, γιατὶ ἔχει ἁλάτι
μέσα. Κι ἂν τὸ σαλμίτριο τῆς πρώτης βράσης δὲ θέλει 'ναι ἔτσι ὄμορφο κι ἄσπρο, νὰ
τὸ σμίξῃς μ' ἐκεῖνο τῆς δεύτερης βράσης, καὶ νὰ τὸ κάμῃς νὰ βράσῃ ἀντάμα. Μὰ τοὺς
δίνεις τὰ τέσσερα πεντᾶτα τὸ νερὸ ἀπὸ κεῖνο ὁπού 'ναι τὸ σαλμίτριο, τὸ ὁποῖο θέλεις
κάμει νὰ βράσῃ καταπῶς ἔβρασε τὸ πρῶτο. Κι ἀποκεῖς φινάροντάς το, ἄφσ' το καλὰ νὰ
στεγνώσῃ στὸν ἥλιο, κι ἀποκεῖς νὰ τὸ βάλῃς . . . .

[k] κιαμε.

[l] βάνεις [εἰς] τὴν.

a chisel long enough to come out of the mouth of the gun, so that you can pierce the stopper here and there, and then cut it out with the chisel piece by piece; to do this is
43v dangerous. And then take out the powder and put it to dry, and afterwards reload your piece with really dry powder. But the stopper is put in because it forces the shot more strongly.

To load perrier-cannon:

A 10 lb perrier-cannon needs 3 lbs 4 ozs of powder.
A 20 lb perrier-cannon needs 6 lbs 8 ozs of powder.
A 30 lb perrier-cannon needs 10 lbs of powder.
A 45 lb perrier-cannon needs 15 lbs of powder.
A 60 lb perrier-cannon needs 20 lbs of powder.
A 100 lb perrier-cannon needs 33 lbs 4 ozs of powder.
A 150 lb perrier-cannon needs 42 lbs 6 ozs of powder.
A 200 lb perrier-cannon needs 56 lbs 8 ozs of powder.
A 250 lb perrier-cannon needs 70 lbs of powder.

Perrier-cannon of a hundred pounds or more reduce their charge by 5% of the shot.

To purify coarse saltpetre:

Take some boiling fresh water, as much as the saltpetre you want to refine. Put it in
44r a clean cauldron or pot on the fire, adding some fine clean ash. If you should be using ten pounds of saltpetre, add two spoonfuls of ash, and let it boil well. Then skim off the foam as long as foam comes. Take it off the fire, and put the pot . . . . as much water as will not spill out, and then . . . . with some cold water two or three times with your hand. Let the water around become quite clear. You will see that it will make something like a string around the pot, and this is the sign that you can pour it out very slowly so that it does not get muddy. When you have emptied out the clean part, put the sediment in something else, and leave it for two days and two nights so as to be . . . . and then empty out the water and let it drain out well until it stops dripping. Then put that water on the fire to boil until it shows that it is boiling well. At this point you put the tip of a staff to stand in the water, and let it drip on a cold knife. If you see the drop . . . . if you take the pot off the fire. And lean it somewhere and leave it to get clear. If it has salt in it, it will make a cream on its surface, and this is the salt. You must take it off with a skimming-ladle; do this two or three times. Then pour out the
44v water and leave it . . . . But note that this saltpetre from a boiling where salt is skimmed off will not be best quality because it has salt in it. And if the saltpetre of the first boiling should not be fine and white, mix it with that of the second boiling and let it all boil together. But put in only four-fifths water to one part of saltpetre, and make it boil like the first lot. Then when you have refined it, leave it to dry thoroughly in the sun. Then place it . . . .

GLOSSARY [8]

ἀβανζάρω *to advance, project* < Ital. *avanzare.* Zac. ἀβαντσάρω.
ἀκκαδέρω· *to be fitting* < Ital. *accadere.*
ἀλτελαρία *artillery, cannon* < Ven. *artigliaria.* Ital. *artiglieria.* Zac.
ἀπάνου For ἀπάνω, by analogy with adverbs of place in -ου, *e.g.* ποῦ, παντοῦ, etc. (*MNE* II 309). *Cf.* ἀποπάνου, κάτου, in this text. This change is principally found in the Peloponnese and the Ionian Islands.
ἀπεκεῖ, ἀποκεῖ, ἀποκεῖς *then, thereafter* (almost always adverb of time). Zac. ἀπεκεῖ ἀποκεῖ.
ἀπερνῶ For περνῶ.
ἀρίδα *auger.*
ἀρκιμίστας *alchemist* < Ven. *archimista.* Ital. *alchimista.*
ἀρχινίζω For ἀρχίζω.
ἀσπίδο *type of mortar*, ‘ *serpent* ’ < Ital. *aspido.*
ἄστα *pole* < Ital. *asta.*
ἀττόρνο *around* < Ital. *attorno.* Zac. ἀττόρνου.
ἀφόντις *since, when.*
ἀφφιδάρομαι *to trust* < Ital. *affidarsi.* Zac. ἀφφιδεύουμαι.
ἄφσ’ For ἄφησε. Zac.

βέργα *staff.* Byz.
βολίμι, βολιμένιος *lead, leaden.* By metathesis of μολύβι. Βολιβένιος is still further confused.

γοβερνάρομαι *to be controlled, restrained* < Ital. *governarsi.*

δείξιμο *sign, symptom.* Zac.
δὲ μπέλλα *of good quality* < Ital. *de bella.*
διετζίνα* *ten, decade* < Ital. *diecina.* Emendation for δουζίνα, *dozen.*

ἔδε *as soon as* < ἴδε, *lo !*
εἰσέ *to, in.* Transitional between εἰς and σέ. All three are found in the *Manual*, as well as the combinations στό, στή, etc. A similar stage of development is seen in Chumnos’ poem (*c.* A.D. 1500).
ἐκτύπος (or ἔκτυπος?) For κτύπος.
ἔναι The older form of εἶναι. The transition took place in written works in the sixteenth century, and ἔναι occurs only three times in *Erotocritos.* In the *Manual* the ratio ἔναι : εἶναι is 6 : 17.

ζυάζω For ζυγιάζω.

---

[8] It is hoped that this Glossary notes all words from the *Manual* derived from Venetian and Italian, with some other words used in unusual forms and senses. ‘ Byz.’ means that a word, whatever its ultimate derivation, is found in Byzantine authors; ‘ Zac.’, applied to a word not universally used in Greece, means that it is recorded from Zacynthus. Principal works consulted have been:

Ν. Π. ’Ανδριώτης, ’Ετυμολογικὸ λεξικὸ τῆς κοινῆς Νεοελληνικῆς (Athens, 1951).
G. Boerio, *Dizionario del dialetto veneziano* (Venice, 1829).
C. Du Cange, *Glossarium mediae et infimae graecitatis* (Breslau, 1891).
Γ. Ν. Χατζιδάκης, Μεσαιωνικὰ καὶ νέα ἑλληνικά (Athens, 1905–7), abbrev. *MNE.*
Λ. Χ. Ζώης, Λεξικὸν φιλολογικὸν καὶ ἱστορικὸν Ζακύνθου (Zacynthus, 1898) (A–M only. A new and completed edition is promised.)

and various Italian dictionaries.

ἠβλέπω For βλέπω. A back-formation from ἤβλεπα, itself formed by analogy with ἤθελα, εἶχα, etc. (*MNE* I 28 ff.).
ἠθέλω Back-formation from ἤθελα.

ἰντʒίρκα *about* < Ital. *incirca*. Zac.

κάβο *hollow, cavity* < Ital. *cavo*.
κακκάβη, κακκάβι *pot, kettle*.
καλάρω *to reduce* < Ital. *calare*. Zac. (but in different sense).
καλκοῦνι *stopper*. Derivation uncertain.
καμάρα *powder-chamber*. A classical word, but in this sense probably < Ven. *camara*. Ital. *camera*.
καμαράδα *equipped with a powder-chamber* < Ven. *camarada*. Ital. *camerata*.
κάμωμα *action, battle*.
κανεβάτʒα *canvas* < Ven. *canevazza*. Ital. *canavaccio*.
κανόν, κανόνι < Ven. *canon*. Ital. *cannone*.
καργάρω *to load*, καργάδο, καργαριστός *loaded*, καργαδοῦρα *charge*, καργάρισμα *loading* < Ven. *cargar*, *cargadura*, etc. Ital. *caricare*, *caricatura*.
κάτʒα (a) *loading-measure*, (b) *ladle* < Ital. *cazza*.
κατʒάρω, κατʒαρίʒω *to press in* < Ven. *cazzar*. Ital. *cacciare* (Ital. *cazzare* has only a limited nautical sense). Zac.
κάτου See ἀπάνου.
κιάρο* *clear* < Ital. *chiaro*.
κοκόνι *stopper* < Ven. *cocon*.
κολομπρίνα *culverin* < Ven. *colombrina*. Ital. *colubrina*.
κομμάτι *piece* (of artillery). Imitation of Ital. *pezzo*.
κόνκα *cauldron, pot* < Ital. *conca*. Zac.
κοντίνουα *in the same way* < Ital. *continuo*. Zac. κοντινουάρω.
κουβέρτα *coating, covering* < Ital. *coverta*.
κουλάττα *base of a gun-barrel* < Ital. *culatta*. Zac. κουλάττη *wide end of an egg*.
κουλούμος *heaped* < Confusion of Ital. *culmo* and *cumulo*? Zac. κουλούμα *dung-heap*.

λάντʒα *lance* < Ven. *lanza*. Ital. *lancia*. Zac. (in other sense).
λί *the* (masc. pl. of the article) < Ital. *li*.
λιντʒιεραμέντε *lightly, easily* < Ital. *leggermente*.
λίτρα *pound-weight*. Byz.
λουμπαρδάρης, λουμπαρδέρης *gunner*. A corruption of Ital. *bombardiere*, from the fact that Lombardy was the home of so many Venetian mercenaries. Similarly, λουμπάρδα *gun, mortar*, for *bombarda*. A Spanish derivation suggested by Andriotis seems unnecessary. Zac. Λουμπαρδάρης as seventeenth-century family name.

μανοβέλλα *lever* < Ital. *manovella*. Zac. μανουβέλλα.
ματαγυρίʒω *to turn back*. Compounds in ματα- seem rare in Zacynthus. Only one (not this) is recorded.
μετάλλο *metal*. Byz.
μέτρα (fem.) *measure*.
μοδέλλο, μόδολο *cylinder* (of a loading-measure) < Ital. *modello, modulo*.
μόδος *way, mode*. Byz.
μουράδα *wall, fortification* < Ven. *murada* (not in this sense). Ital. *murato*.

μπάλλα (a) *ball, shot,* (b) *the width of a cannon-ball, calibre.* Byz.
μπεζονιάρει, μπεζουγνιάρει, μπιζογνιάρει *it is necessary* < Ven. *besognar,* Ital. *bisognare.* Zac. μπιζόνιο.
μπονάμο ? Perhaps error for Ven. *bonato* ‘ sweet ’.
μποτόνι *wad, bunch of rags* < Ven. *boton di canon.* Ital. *bottone.*
μποῦκα *mouth of a gun.* Byz.
μπουμπαρδιέρης *gunner* < Ital. *bombardiere.*
μπράτζο *arm.* στέκει εἰς τὸ μπράτζο, *it depends upon* < Ven. *brazzo.* Ital. *braccio.* Zac.

νότα *note, list.* Byz.
ντὰ λίρε *of (so many) pounds* < Ital. *da lire.*
ντάννο *damage* < Ital. *danno.*
ντελεττάρομαι *to enjoy* < Ital. *delettare.*
ντήνε, ντό For τήνε, τό.
ντοπεράρω *to use, employ* < Ital. *adoperare.*

ὄ *or* < Ital. *o.*
ὀγγιά *ounce* < Byz. οὐγγιά and Ital. *oncia.*
ὀνεσταμέντε *honestly, sincerely* < Ital. *onestamente.*
ὀρδινιά *order, standard.* Byz.

πάννα *cream* < Ital. *panna.*
πάρτα *part* < Ital. *parte.*
πᾶσα *every.* Indeclinable, and almost always in phrases πᾶσα εἷς (gen. πᾶσα ’νοῦ < ἑνοῦ (ἑνός)), πᾶσα λοῆς, πᾶσα μέρα. Πᾶσα μπουμπαρδιέρης is unusual.
πεζάρω *to weigh* < Ital. *pesare.*
πέζζο *piece of artillery* < Ital. *pezzo.*
πέλαγος (gen. πελάγου). Transitional between classical form and modern dialect πέλαγο, πελάγου.
περίκολο *danger* < Ital. *pericolo.*
περριέρα *perrier, stone-shot cannon* < Ven. *petriera.* Ital. *petriere.* But *cf.* French *pierrier.*
περφεττίσσιμο *quite perfect* < Ital. *perfettissimo.*
πὲρ φόρτζα *by force* < Ital. *per forza.*
πινιάττα *pot, cauldron* < Ital. *pignatta.*
πλέο *more.* The relation of the six forms found in the Manual is πλέο ⟶ πιλέο (πιγλέο) ⟶ πιλιό (πιλιόν) (πιγλιό), of which the spellings with γ may be regarded as an attempt (in the Italian convention) to represent the softening of the *lambda* as it disappeared to give the modern πιό. Zac. πιλιό. In this text they are often used as an indeclinable adjective, *e.g.* τοὺς πλέο ἀνθρώπους, ‘ most men ’.
πόλβερη, πούλβερη *gunpowder* < Byz. πούλβερις, Ital. *polvere.*
ποῦντα *point* < Ital. *punta.*
πρόβα, προβάρω *test, to test* < Ital. *prova, provare.*

ῥάσος *level, scraped flat* < Ital. *raso.*
ῥέγουλα *rule, method.* Byz.
ῥεκιόνια *trunnions* (projections where the barrel of a gun is supported) < Ven. *rechioni.* Ital. *orecchioni.*
ῥεπάρα *redoubt, defence* < Ital. *riparo.*
ῥέστο *rest, remainder* < Ital. *resto.*

σακκέττο *little bag* < Ital. *sacchetto.*
σάκρο *type of mortar, saker* < Ital. *sagro.*
σαλιμίτριο, σαλμίτριο *saltpetre* < Ven. *salnitrio, salmistro.* Ital. *salnitro.*
σεγνιάλο *point, sign* < Ital. *segnale.*
σέγνιο *point, mark* < Ital. *segno.*
σεγοῦντο *according to* < Ven. *segondo.* Ital. *secondo.*
σερβίρομαι *to make use of* < Ital. *servirsi.*
σετάδο *adjusted, well-fixed* < Ven. *setar.* Ital. *assettare.*
σιγουράρω *to make safe* < Ital. *sicurare.* But note σίγουρος *safe.* Byz.
σκαρπέλλο *chisel* < Ital. *scarpello.*
σκαρτότζο, σκαρτοῦτζο *roll* (of cloth) < Ven. *scartozzo.* Ital. *scartoccio.*
σκαφέτα, σκαφιδόπουλο *little trough* < Ven. *scafeta* (itself from σκάφος) : σκαφίδιον.
σόρτα *sort* < Ital. *sorta.*
σπάγος *string.* Byz.
στοιβαδόρος *ramrod* < στοιβάζω, with Ital. termination.
σφιλάτζο *waste string* < Ven. *sfilazzi.* Ital. *sfilacci.*
σφορτζάδος *strained, forced* < Ital. *sforzato.*

ταγιάρλο For Ital. *tagliarlo,* 'cut it'.
τειάφη *sulphur.* For τειάφι < θειάφι. The feminine form is recorded from Epirus (*MNE* II 56).
τή For τῆς.
τοκκάρω *to touch* < Ital. *toccare.* The impersonal τοκκάρει is Cretan.
τούρα For τώρα.
τράττο *moment, time* < Ital. *tratto.*
τρούπα For τρύπα.
τρυπουλίτζα *fire-vent* (where the match is applied to the charge).

ὑψηλότητα *subtlety.* Mistake for ψιλότητα.

φαλκόνι, φαλκονέττο *two types of mortars, falcon and falconet.* In this sense < Ital. *falcone, falconetto.*
φαστιδιόζος *difficult, troublesome* < Ital. *fastidioso.*
φατζιόν *action, battle* < Ital. *fazzione.*
φινάρω *to refine* < Ital. *finare.*
φοντάκιο *sediment* < Ven. *fondachio.* Ital. *fondaccio.*
φοῦντι *end, extreme part* < Byz. φοῦντος.
φουστάγνιο *fustian* < Ital. *fustagno.*

G. MORGAN

A TOPOGRAPHICAL AND HISTORICAL STUDY OF ACHAEA

Among the seven nations inhabiting the Peloponnese, Herodotus[1] counts the Achaeans third. They were, he says, natives of the Peloponnese, but no longer living in their own land. Elsewhere[2] he says that the Ionians of Asia Minor were divided into twelve cities because formerly when they lived in the Peloponnese they were divided into twelve parts, which twelve divisions were maintained by the Achaeans who expelled them. This story was certainly believed generally by Ionians and Achaeans alike in the fourth century B.C.,[3] and is accepted by Polybius, Strabo, and Pausanias,[4] who add that the Achaean leader was Tisamenos, son of Orestes. Perhaps when the Homeric Catalogue of Ships was composed Achaea was ruled by princes claiming descent from Agamemnon, some of whose followers

Ὑπερησίην τε καὶ αἰπεινὴν Γονόεσσαν
Πελλήνην τ' εἶχον, ἠδ' Αἴγιον ἀμφινέμοντο
Αἰγιαλόν τ' ἀνὰ πάντα καὶ ἀμφ' Ἑλίκην εὐρεῖαν.[5]

The date of Ogyges, named as the last king, is uncertain, but there is no evidence that the land was ruled by kings at the time when the western colonies were founded. The princes named by Pausanias are surely fictitious,[6] but the tradition of a separate dynasty, that of Preugenes and his son Patreus, suggests that Western Achaea, the area not mentioned by Homer, may have formed a separate kingdom. The later writers (strangely) contradict Homer, though they do not confess to doing so; probably neither account is wholly correct. The boundaries of the kingdom of Mycenae in the 'Catalogue' are too strange to be accepted, but on the other hand the later story seems to rest on little more than the division of Achaea into twelve parts and the supposed connection between Helike and Poseidon Helikonios.[7]

Modern archaeological research has shown that Achaea, including the territory west of Helike which Homer does not mention, was culturally part of the Mycenaean sphere of influence,[8] but this does not prove that it was politically dependent on Mycenae. The evidence

---

I am most grateful to Miss S. Benton for suggesting to me this subject for study; to Mr. T. J. Dunbabin for continual advice and encouragement, and for reading and greatly improving the first draft of this paper; to Mr. J. M. Cook, for his advice and help while I was working at the British School at Athens; to Professor G. R. Manton and Mr. J. R. Hamilton of the University of Otago for various suggestions, and to Mr. E. S. G. Robinson and Professor F. W. Walbank for their advice.

The staff of the Library of the University of Otago have shown me the greatest kindness; it is in no way their fault that my references to the works of other scholars are so incomplete. I was assisted in the purchase of books by a research grant from the University of New Zealand.

[1] VIII 73.

[2] I 145.

[3] *V. infra.*

[4] Polybius II 41. Strabo VIII 7, 1. Pausanias VII 1 ff.

[5] *Iliad* II 573–5.

[6] VII 6, 2.

[7] Munro, *JHS* LIV 117. One might add that there were rivers called Selinus near Aigion and near Ephesus (Strabo VIII 7, 5).

Wilamowitz (*S. B. Berl.* 1906, 69, n. 2) suggests that the Peloponnesian Achaeans adopted their name when they combined into a League and sent out colonies. Hence the idea arose that their land was the true Achaea, the original home of the Greek settlers in Asia Minor, whom he supposes to have still called themselves Achaeans.

This does not explain the form the legend finally took; all versions are quite clear that Peloponnesian Achaea was not the true home of the Achaean race and was originally called Aigialos or Aigialia (Frazer, note on Pausanias VII 1, 1) before taking its name from the people who drove the Ionians out, at the time of the Dorian invasions.

Moreover, if the Achaeans first adopted that name at the end of the eighth century, they would have been looked on as upstarts by the Ionians, even if the latter claimed to be Achaeans, and the evidence produced by Wilamowitz does not prove that they did.

Aristarchus (*Etym. Magn.* 547) connects Poseidon Helikonios with Helikon, not Helike, doubtless correctly.

[8] Kyparisses in *PAE* 1925–6, 43–7 and 130–1; 1927, 52; 1928, 110–19; 1929, 86–91; 1930, 81–8; 1931, 71–3; 1932, 57–61; 1933, 90–3; 1934, 114–5; 1935, 70–1; 1936, 95–9; 1937, 84–93; 1938, 118–9; 1939, 103–6; 1940, 31. I have examined the vases from these excavations, which are now in the Museum at Patras, but am not qualified to give an opinion on them. A full study, properly illustrated, by some scholar who understands these matters is much to be desired.

of archaeology and linguistics does not confirm the ancient legends, but it is not strong enough to refute them. All that seems certain is that the inhabitants of the country in the Late Bronze Age had burial customs and pottery similar to those found in the rest of southern Greece at the time, and that Achaea was not spared by the upheavals that marked the beginning of the Iron Age.[9] That refugees from Achaea did in fact take part in the migration to Asia Minor seems to me likely: that the invaders were led by a prince expelled from Argos and Lacedaemon by the Dorians is just possible. The insistence of the Spartan royal house in historical times on its descent (real or imagined) from the Mycenaean dynasty is well known, and Pausanias (V 4, 3) was told that the people of Elis after the conquest had invited the great-grandson of Orestes and a few Achaeans from Helike to live among them. It seems quite likely that the invaders, whose descendants were so anxious to claim connection with the earlier possessors of the land, may sometimes have combined with the native chieftains and their peoples. The story of Tisamenos was later [10]—perhaps in 417 B.C.—used by the Spartans for their own purposes, and his bones, like those of Orestes his father before him, were carried off to Sparta. There seems to have been a certain connection, perhaps even blood-relationship, between Achaeans and Arcadians in historical times, enough to lend colour to the claim of the former to have been original inhabitants of the Peloponnese, though not enough to substantiate it. The Arcadians and Achaeans who formed more than half of Xenophon's Ten Thousand made common cause against the rest.[11] Callmer suggests that the Olympic victor Philippos, described by Pausanias as Ἀζὰν ἐκ Πελλάνας, may have come from the Achaean Pellene, but this is surely impossible.[12] The remaining evidence is very slight. Eponymous heroes for Helike, Aigion, and possibly Leontion are named among the sons of Lykaon.[13] Lycophron [14] preserves or invents a tradition that colonists from Olenos, Dyme, and Bura were among the Greeks who settled in Cyprus, and the place name Keryneia occurs in that island and in Achaea.

Wherever the Achaeans may originally have come from, they were established along the northern coast of the Peloponnese at the beginning of Greek history. Their twelve ' divisions ', as listed by Herodotus,[15] were Pellene over against Sicyon, Aigai, Aigeira, Bura, Helike, Aigion, Rhypes, Patrai, Pharai, Olenos, Dyme, and Tritaia. This list is repeated by Strabo,[16] whose account of the country does not seem to be based on personal knowledge. By the time of Polybius [17] Aigai, Rhypes, Helike, and Olenos had disappeared; the first two, which may have been abandoned during the troubled fourth century, are replaced in his list by the hill fortresses of Keryneia and Leontion, but the fate of Helike, engulfed in the sea after an earthquake in 373 B.C., preserved its memory, and he also records the name of Olenos, presumably because it was still inhabited at the time when the old League was dissolved. Pausanias,[18] who travelled through Achaea from West to East, omits Patrai, which in his time was a Roman colony, from his list, and replaces it by Keryneia; otherwise he agrees with Herodotus.

---

[9] Wilamowitz (*op. cit.* 69) considers that the Peloponnesian Achaeans were of the same stock as the Aetolians, Locrians, and Phocians. He adds (*ibid.*, end of note 2) that ' Der Achäername ist genau so leer wie der Hellenenname, ausser in Phthia '. But a real connection between the Achaeans of Phthia and those of the Peloponnese seems quite possible. Buck (*Greek Dialects* 7) believes that the historic Achaeans spoke a West Greek dialect, that is, one related to the speech of Elis. But there is very little evidence, and what there is comes from Magna Graecia, not Achaea proper (*ibid.* 10 note).

I have been unable to obtain access to the *Handbuch der griechischen Dialekte* of Thumb and Kieckers (ed. 2, 1932, 226–34) cited by Callmer (*Studien zur Geschichte Arkadiens* 45) for the opinion that ' in historischer Zeit spricht man hier (in Achaea) einen dorischen Dialekt. Aber man darf vermuten, dass es auch eine mit dem Arkadischen verwandte Mundart gab.' Nobody regarded the Achaeans as true Dorians; note Pausanias's explanation (VII 6, 4) of their neutrality during the Persian wars. Strabo (VIII 1, 2) says that after the expulsion of the Ionians only members of the Dorian and Aeolian races were left in the Peloponnese, whose inhabitants, except for the Arcadians and people of Elis who spoke pure Aeolic, spoke a mixture of Doric and Aeolic. The Achaeans he calls an Aeolic tribe, so he regards them as speaking Aeolic with a Doric accent.

[10] Pausanias VII 1, 8.

[11] *Anabasis* VI 2, 9 ff. Many of the Arcadians were near neighbours of Achaea, *e.g.* Agasias of Stymphalos, Sophainetos of Stymphalos, Kleanor of Orchomenos.

[12] Callmer, *op. cit.* 46; Pausanias VI 8, 5; see Frazer's note. Niese, in *Hermes* XXXIV 549 ff., discusses an inscription from Magnesia on the Maeander, dated 207–6 B.C. (Kern, *Inschriften von Magnesia*, no. 38; Dittenberger, *Syll.* II^3 no. 559; I^2 no. 258) in which ' Pellana ', Karyneia (= Keryneia), and Tritaia are numbered among ' the other Arcadians '. Whichever ' Pellene ' may be the one referred to here, the mention of Keryneia and Tritaia shows that at this time there was not felt to be any great racial difference between the Achaeans and the Arcadians with whom they were united politically.

[13] Apollodorus III 8, 1; Callmer, *op. cit.* 45 ff.

[14] *Alexandra* 586 f.; Strabo XIV 6, 3; Callmer, *op. cit.* 33.

[15] Herodotus I 195.

[16] Strabo VIII 7, 4.

[17] Polybius II 41, 7 (see Bölte in *RE* XVII 2438 ff.).

The Achaean cities may be conveniently divided into four groups—the hill fortresses of Eastern Achaea, the cities in and round the central plain, the cities of the western seaboard, outside the straits of Rhion, and the inland cities, near the borders of Elis. In the first group are included Pellene, Aigai, Aigeira, Bura, and Keryneia. From the great mountain masses of Cyllene and Aroania (Khelmos) long spurs of limestone run northward to the coast of the Gulf of Corinth. Between these spurs the rivers, which for the most part flow the whole year round, have carved out of the soft rock valleys, flanked by cliffs, often hundreds of feet high and quite unscaleable. Tributary streams, coming down at right angles to the main valleys, break these cliffs and subdivide the rock spurs into almost isolated blocks, which increase in height from a few hundred feet near the sea to two or three thousand at the point where they detach themselves from the main mountain masses. These higher blocks are covered in fir forest; on the lower hills, where the ground is not too precipitous to support vegetation, grow pine-trees and oaks (the latter usually reduced to scrub). Wherever possible, the sides of the valleys are cleared for vineyards and patches of barley, and on the more open hillsides goats and sheep are pastured.

At each valley mouth the rivers have pushed out deltas; these small coastal plains now support valuable groves of oranges, lemons, and loquats. Between them, the hills come right down to the water's edge. Communication is today, as it was in the time of Pausanias and probably long before, by a main road along the coast—a road easily blocked at each of the *dervens* where the hills approach the sea—from which side tracks climb the various valleys. These paths (for they are nothing more) cross the long north-to-south ridges wherever there is a practicable saddle, and a well-girt man may travel from ridge to ridge without descending to the sea, but heavy traffic goes by the coast, and may be controlled by any power with an adequate naval force in the Gulf.

The Achaean cities were built on the tops of the rock spurs. Pellene, lying farthest to the east, is cut off from the others by the chain of hills which runs out to Cape Avgo, and it is significant that its territory is nowadays included in the Nome of Corinthia and Argolis, not Achaea. From the height of Pellene the traveller looks south to Arcadia or east to Sicyon rather than westward, and an easy route (that followed by the modern motor road to Trikkala) leads to Stymphalos, Pheneos, and Orchomenos. The port of Pellene, Aristonautai,[19] lay in a westward continuation of the Sicyonian plain, from which it was separated only by the shallow river Sythas.

West of Cape Avgo, a second maritime plain lies at the mouth of the Krathis river. This plain was anciently shared by the cities of Aigai and Aigeira: the latter, strongly situated on a hilltop, retained its importance until the time of Pausanias and later, and its site is still marked by impressive ruins.[20] Aigai, famous from remote antiquity for its temple of Poseidon, seems to have attained commercial importance earlier than its neighbours. Its fifth-century silver pieces are the earliest known Achaean coins.[21] Later the inhabitants deserted the site, through weakness, says Pausanias,[22] and were united with the people of Aigeira. The city stood by the banks of the Krathis, but there are now no remains which would enable its site to be fixed precisely. Its position in the rich maritime plain accounts both for its early prosperity and for its later abandonment in favour of a more readily defensible place.

---

[18] Pausanias VII 6, 1.

[19] Leake (*Travels in the Morea* III 390 ff.) is certainly right in placing Aristonautai at Kamares, west of the Sythas, rather than at Xylokastro, which, being east of the river, is in Sicyonian territory, and has, moreover, no ancient remains to speak of, while those at Kamares are considerable. (Compare Frazer, note on Pausanias VII 26, 13.) The difficulty that Kamares lies less than 120 stades from the port of Aigeira is resolved by placing this port near the modern railway station of Aigeira, where there are ancient remains, including a considerable stretch of ancient foundation immediately south of the track, and tiles and potsherds in the fields. The open beach along this part of the coast might afford facilities for ancient navigation. Frazer (note on Pausanias VII 26, 1) follows Leake (*op. cit.* III 386 ff.) in placing the port of Aigeira rather farther east, at the promontory now called Mavra Litharia; here, too, there are ancient remains, but the distance from Bura to the west is too great and from Kamares to the east too small; moreover, the coast is rocky.

The headwaters of the Krathis are in Arcadia, and its valley furnishes a beautiful and comparatively easy route (followed by most modern visitors to the Styx) to the territory of Nonakris, from which hill tracks lead to other North Arcadian towns. The two remaining cities of the eastern group, Bura and Keryneia, stand some distance back from the sea in positions of great strength on top of the precipitous spurs which flank the valley of the Kerynites or River of Kalavryta, Bura lying to the east of the river, Keryneia to the west. The river valley shuts in just south of a line connecting the two cities to a magnificent gorge which was certainly quite impassable before the track of the railway to Kalavryta was blasted out of the rock. But a mule-path (in Leake's day the main route between Kalavryta and Aigion)[23] skirts the hills above the east side of the valley to a point below the gorge, where it crosses to the western spur, and passes over a high saddle immediately under the walls of Keryneia. Thence it descends north-westward into the central plain. Near Kalavryta stood in antiquity the small Arcadian town of Kynaitha, notorious for the massacre described in Polybius IV 17–21. It is unlikely that the territory of either Bura or Keryneia extended farther inland than the gorge of the Kerynites, the whole of whose upper valley must have belonged to Kynaitha. Bura apparently owned the valley of the Buraikos, the small river which lies below the city to the east, and Keryneia may have acquired a share in the central plain after the destruction of Helike, to which city it was probably originally subordinate. Pausanias[24] attributes its rise to the arrival of refugees from Mycenae in the middle of the fifth century B.C.

West of the mouth of the Kerynites the country opens out into a wide and rich coastal plain, the economic, and at most periods the political, centre of Achaea. To the south-west rises the great bulk of Panachaikos, which terminates the chain of mountains stretching across the northern Peloponnese. Connecting Panachaikos with Aroania is a tangled mass of lower hills, which forms the watershed between the rivers flowing northward through the coastal plain to the Corinthian gulf and the Peiros, which flows westward to the open sea.

On the seaward edge of the plain lay Helike, famous for its temple and image of Poseidon. The tradition already referred to, that Helike was the last stronghold of the Ionians and the resting-place of the bones of Tisamenos, points to its having been the capital of the kings. After its destruction, its political importance was transferred to Aigion, which, more securely situated on a high bluff overlooking the sea, remains to this day a considerable city, though it also has frequently suffered from earthquakes. A few miles inland, on a low hill near the south-west edge of the plain, stood Rhypes.[25]

---

[20] A plan of Aigeira is included in the report on the Austrian excavations of the site (Walter, *ÖJh* XIX–XX (1919), Beiblatt, *cols*. 5–42). See also Frazer's note on Pausanias VII 26, 1.

[21] Pausanias (VII 25, 12), though he did not actually see the temple of Poseidon, believed that this was the Aigai of *Iliad* VIII 203. Strabo (VIII 7, 4) mentions the temple. On the coins of Aigai see Head (*HN*^{2} 412), who dates the series from *c*. 500 to *c*. 370 B.C. Friedländer (*Zeitschrift für Numismatik* V 5 ff.) attributes these coins to the Achaean Aigai because of the alphabetical form of their inscriptions and the style of their design.

[22] VII 25, 12, Leake, *op. cit*. 175 and 394–6; Frazer, note on Pausanias VII 25, 11. The remains of antiquity observed by Leake near the ' Khan of Akrata ' have now disappeared.

[23] Leake made this journey more than once: *Travels in the Morea* II 111 ff., III 397 ff.

[24] VII 25, 5–6.

[25] The site was first correctly identified by von Duhn (*AM* III 66). Traces of walls, foundations of houses, and fragments of column drums were still to be seen in the summer of 1951, but the hill is now covered with vineyards, whose cultivation is fast obliterating the traces of antiquity.

The watershed between this plain and the Peiros valley may be traversed on foot, though not easily. It was guarded in the time of Herodotus by the city of Tritaia, and in the Hellenistic age Leontion, also in this district, achieved independence. Pharai, in the Peiros valley, should also be numbered among the inland towns of Achaea.[26]

The route across the watershed is the shortest one between the central Achaean plain and the northern frontiers of Elis. (The raid on Aigion described in Polybius V 94 must have crossed these hills; a march through Kynaitha and above the Kerynites valley would have brought the invaders under the walls of Keryneia.)

West of the central plain, the foothills of Panachaikos approach the coast, though the passes are nowhere as narrow as in Eastern Achaea. There are no considerable rivers, but the land is scored by the wide, stony beds of winter torrents coming down off the mountain. The sandy promontory of Drepanon is the most northerly point of the Peloponnese. A few miles farther west Rhion and the corresponding cape of Antirrhion guard the straits at the entrance of the Corinthian Gulf. Some five miles south-west of Rhion is the important seaport of Patras, occupying the site of the ancient Patrai at the seaward extremity of one of the north-western spurs of Panachaikos. South of Patras is a wide, fruitful plain, scarred by the broad, stony bed of the torrent Glaukos, and beyond this is another line of foothills, separating the territory of the ancient Patrai from that of Olenos and Dyme. These, the last two Achaean cities, stood one on each side of the mouth of the Peiros. The former, shut in between the sea and the mountains, had ceased to exist in Hellenistic times, but Dyme, whose territory included the plain country on the borders of Elis, was one of the original states of the revived League,[27] and survived the Roman conquest to become a settlement for reformed pirates in the time of Pompey the Great.[28]

The early political history [29] of the country is summarised by Polybius [30] as follows: After the expulsion of the kings the Achaeans changed their form of government to a democracy; thereafter, until the reign of Alexander and Philip, through various turns of fortune, they always endeavoured to preserve their common constitution in democracy. This statement, placing the origin of the united and democratic Achaean League in remote antiquity, requires critical examination.[31]

That Herodotus and Thucydides regularly speak of Achaea as a geographical unit and the Achaeans as a nation [32] proves nothing about their political organisation. Arcadia and Ionia are frequently spoken of in the same way, but neither had developed a federal constitution in the fifth century B.C. It will perhaps be simplest to consider briefly the nature of the Achaean constitution in Hellenistic times and then to see how far the notices of the Achaeans in earlier history seem to point to the existence of a similar League.[33]

The members of the Hellenistic League, while enjoying equality one with the other [34] and freedom in the regulation of their internal affairs and in the appointment of their own magistrates,[35] submitted their foreign policy and the control of their armed forces to the federation as a whole. It is clear from the oath taken on the occasion of the entry of Orchomenos into the League [36] that the citizens of each of the member cities ‘ became Achaeans ’; what is not clear is whether local citizenship was interchangeable, for example, whether a citizen of Pellene could qualify, by residence or the possession of property, for a voice in the internal affairs of Aigeira. Probably in the Hellenistic age, when honorary citizenships were so freely granted to athletes, physicians, and all manner of distinguished people, this was not a matter of much importance. Any Achaean seems to have been able to own property in any city of the League; [37] this right was taken away by Mummius when he put down the Greek confederacies.[38] Supreme control of the external and military policy of the League was vested in an Assembly, theoretically composed of all Achaean citizens, whose regular meetings were held at Aigion,[39] apparently twice each year.[40] It was the part of the Assembly to elect the federal officials, of whom the most important were the generals, to direct them as to their policy during their term of office,[41] and to vote supply.[42] The generals were originally two in number; [43] this may reflect the arrangements of the earlier league, but there is no evidence on this point, and indeed none for the existence of any federal officers in early times, and so I think it irrelevant to describe those of the later league here.

---

[26] *Cf.* Pausanias VII 22, 10. It is hard to see why Herodotus (I 145) says that Tritaia is the only inland Achaean city. Pellene, Bura, and probably Rhypes must have possessed land on the coast; but Pharai lies well inland, and Dyme and Olenos seem to cut it off from all outlet to the sea.

[27] Polybius II 41, 1.

[28] Strabo VIII 7, 5; Plutarch, *Pompeius* XXVIII; Appian, *Mithridates* 96.

[29] For a fuller discussion of topographical questions, see Frazer's notes to Pausanias, Book VII; Ernst Meyer, *Peloponnesische Wanderungen* 111 ff. Professor Meyer publishes plans of the existing remains of several Achaean cities, and has settled beyond doubt the problem of the positions of Dyme, Olenos, Keryneia, and Bura. (I would myself regard the question of the sites of Tritaia and Leontion as still open.)

[30] II 41. The phrase τῆς Ἀλεξάνδρου καὶ Φιλίππου δυναστείας seems a strange one. [Demosthenes] XVII 10 blames Alexander for the suppression of democracy in Pellene and the establishment of the wicked tyrant Chairon (on whom see Athenaeus XI 509). But there seems to be no authority in the manuscripts of Polybius for reading τοῦ Φιλίππου.

[31] See also J. A. O. Larsen's paper on the Early Achaean League (*Studies Presented to D. M. Robinson* I 797–815).

[32] Larsen, *op. cit.* 797 n. 4.

[33] Many of my references are drawn from Freeman's *History of Federal Government*, Vol. I.

[34] Polybius II 38, 8.

Special meetings of the Assembly could be held at places and times appointed by the generals, but apparently such meetings could discuss only the particular business for which they were summoned.[44] Within the Assembly voting was by cities, not by a simple majority of those present. As Freeman points out, cities would be represented in fact, whatever the theory of the constitution, by their wealthier and more energetic citizens. But no system of elected representation was ever developed.

Foreign states dealt with the League as a whole, and the individual states were supposed neither to send nor to receive ambassadors. Thus Rome was bound by treaty to deal with the League as such, not with its individual members.[45] (This provision was frequently violated.) The agreement by which Orchomenos was admitted to the League was made between the Achaeans, represented by the officers of the League, on the one hand, and the people of Orchomenos, represented by their magistrates, on the other. Such being the general outline of the constitution of the Hellenistic League, it remains to be seen whether the notices of the Achaean cities in earlier history reflect a similar organisation or not.

The Achaeans first achieve historical importance as the founders of cities in Southern Italy.[46] Thucydides (II 66, 1) says that the people of Zacynthus were colonists of the Peloponnesian Achaeans, but this settlement seems to date from before the Trojan War, not from the time of the colonies in Magna Graecia. Sybaris, the first of these, was founded by Is of Helike [47] probably in 720 B.C. The city lay between rivers named Sybaris and Krathis, the one called after a spring near Bura, the other after the river on which Aigai stood.[48] From this it appears that several of the Achaean cities took part in the enterprise, but it cannot be assumed that they acted as a federation, for there were Troizenians as well as Achaeans among the original settlers.[49] The story of the foundation of Croton in about 708 B.C.[50] is more instructive.[51] Myskellos of Rhypes went to Delphi to ask concerning the begetting of children. The oracle ordered him first to found Croton, and since he did not understand, told him how to find his way there. He went to examine what the god had given him, but saw Sybaris, which was already founded, and returned to ask permission to settle there. The god dismissed him with orders to take what he was given and be thankful.

---

[35] Polybius IV 18—polemarchs at Kynaitha. Plutarch, *Aratus* XLIV 3: Aratus is chosen στρατηγός of Argos.

[36] Collitz-Bechtel, *SGDI* II 1634 (= *IG* V 2, 344).

[37] Aratus of Sicyon owned a house at Corinth (Plutarch, *Aratus* XLI, *Cleomenes* XIX).

[38] Pausanias VII 16, 9.

[39] Until 189 B.C.; Livy XXXVIII 29. Aymard (‘ Le rôle politique du sanctuaire fédéral achaien ’, *Mélanges Franz Cumont* 17 ff.) holds that by this time the old sanctuary of Zeus (*v.* p. 80 and note 77 *infra*) had long been abandoned as a meeting-place, and that at the time when the double generalship was abolished the place of assembly was moved into the city of Aigion. Some such theory is necessary to support his view that the League originated as a religious body and later secularised itself.

[40] Polybius XXXVIII 11, 5.

[41] *Ibid.* Kritolaos tells the Roman ambassadors that he can do nothing without the assembly. But obviously the degree of responsibility which a general was prepared to take on himself must have varied with the individual.

[42] Plutarch, *Aratus* XXXVIII 3. Polybius IV 60, 4 refers to τὰς κοινὰς εἰσφοράς. Note also that the various members of the league struck a federal coinage, though the individual mints put their own marks on their own products.

[43] Polybius II 43.

[44] Livy XXXI 25. ‘ Non licere legibus Achaeorum de aliis rebus referre quam propter quas convocati essent.’

[45] Pausanias VII 9, 4.

[46] Dunbabin, *The Western Greeks* 24 ff.

The story bears a strong resemblance to the better-known one of the foundation of Cyrene.[52] In both, the hero visits Delphi to enquire about a private matter, is bidden by the god to found a colony, is ignorant of the way, but after a false start eventually reaches his destined home. I would not, however, regard the story of Myskellos as a later invention; it is supported, as Dunbabin points out, by the coinage of Croton.[53]

Croton was founded nearly a century earlier than Cyrene. I conclude that conditions in eighth-century Achaea were similar to those in seventh-century Thera and that the oracle found the same remedy for both. We are expressly told that things went ill with Thera until the god's orders were obeyed; perhaps both Cyrene and Croton were founded to relieve shortages caused by over-population. The words of the oracle ('Apollo will give you children. But he bids you to found Croton first') might also be taken to support this view.

There is nothing to suggest a concerted effort on the part of the Achaean cities. The instructions of the god were given to Myskellos as an individual, not to the commonwealth of the Achaeans. Moreover, if the Achaean cities had already been federated, their colonies might have been expected to form a similar federation. (It is not clear whether Myskellos wanted to combine with the settlers he found at Sybaris, or to expel them.)

It is possible that Aigion had a share in the foundation of Croton; otherwise it is hard to see why Caulonia, generally supposed to be a Crotoniate foundation,[54] should have taken Typhon of Aigion as its founder.[55] It is remarkable that Is, Myskellos, and Typhon all come from cities in Central Achaea. Lycophron (l. 922) prophesies the death of Philoctetes at the hand of Αὔσονες Πελλήνιοι, but as he always wraps his meaning up in periphrases this is very poor evidence for Pellene having had a share in the Italian colonies. The story that Achaeans from Pellene colonised Scione [56] after the Trojan War is clearly part of a different tradition from that of Tisamenos and the expulsion of the Ionians. It seems to rest on no more than the similarity between the names of Pellene and Pallene.

Larsen [57] believes that the existence of these colonies indicates that the Achaeans had once been the trade rivals of Corinth. There is, however, little evidence for Achaean commerce. Dunbabin [58] notes that Sicilian wheat had been introduced into Achaea at least as early as the fourth century B.C. Pindar mentions bronze prizes given by the Achaean cities:

---

[47] Strabo VI 1, 13.

[48] Strabo, *ibid.* and VIII 7, 5; Herodotus I 145, Pausanias VII 25, 11 and VIII 15, 9.

[49] Aristotle, *Pol.* 1303^{a} 29.

[50] Dunbabin, *op. cit.* 26.

[51] Diodorus VIII 17 and Strabo VI 1, 12 supplement each other. Strabo names Antiochus as his source. The association of Myskellos with Archias, founder of Syracuse, is, as Dunbabin (*op. cit.* Appendix I 444) points out, a late invention.

[52] Herodotus IV 155 ff.

[53] *Ibid.* Head, *HN*^{2} 97.

[54] Dunbabin, *op. cit.* 27 n. 8.

[55] Pausanias VI 3, 12; Dunbabin, *op. cit.* 27.

[56] Thucydides IV 120, 1.

[57] *Op. cit.* 798.

[58] *Op. cit.* 216. Theophrastus, *HP* VIII 4, 4.

this may point to a local metal-working industry.[59] Strabo [60] speaks of cloaks made at a village Pellene, lying between Pellene and Aigion, which were given as prizes ἐν τοῖς ἀγῶσι. The games referred to are clearly the local ones, known to Pindar and still continued in Pausanias's time, though with money prizes. But the fame of the cloaks was more than local.[61] In the fifth century the country seems to have been prosperous: Aigai coined silver [62] and Pellene could afford a chryselephantine statue.[63] A connection—perhaps mainly sentimental—between Achaea and the colonies is proved by the story of the arbitration after the overthrow of the Pythagoreans.[64] The existence of a distinct Achaean form of the alphabet is also significant.[65] All this does not prove, or even suggest, that Achaea was one of the great centres of Greek commerce in the eighth century B.C., or even later. Certainly Myskellos, ignorant as he was of conditions in the west, was no trader. And the stories of Sybarite luxury point to connections with Miletus, Rhodes, and Sicyon rather than with the mother country.[66] But perhaps the strongest proof that the economy of Achaea was agricultural, not commercial, is the reputation for justice and political stability enjoyed by the Achaeans.[67]

The archaeological evidence from both Italy and the Peloponnese is very slight.[68] Indeed, the absence of archaic and classical remains from Achaea is so striking that I myself doubt whether some of the ' divisions ' of the Achaean nation consisted of more than groups of scattered villages in Herodotus's time. That such a group of villages could be a member of the Hellenistic league appears from the history of Patrai, whose people, according to Pausanias, were dispersed into villages throughout their territory as a result of the losses which they sustained in repulsing the Gallic invasion of 279 B.C.[69] Certainly Patrai was a city, not a group of villages, in 419 B.C.[70] And the synoecism of Helike and Bura must have taken place before 373 B.C. Again, the remains of Rhypes, such as they are, belong to the fifth century, by my judgement. At Pellene, Aigeira, Aigion, and Patrai the activity of later builders (continued at the last two places until the present day) may well have obliterated earlier remains. But at least no Achaean city shows on the surface any trace of having been a considerable place in archaic times. Strabo states in one place [71] that ' the Ionians lived in villages (κωμηδόν) but the Achaeans founded cities ', in another [72] that ' each of the twelve divisions (μερίδες) consisted of seven or eight communities (δῆμοι) '. I do not accept the suggestion that the synoecisms followed directly upon the expulsion of the Ionians, but the passages are of value as pointing to a definite tradition of village life.

---

[59] *Nem.* X 45–8. *Cf.* D. M. Robinson in *AJA* XLVI 172 ff. and Payne, *NC* 216, on a possible connection between Aigion and the Trebenischte bronzes; also the present writer's *Excavations near Mamousia*, *BSA* XLVIII 154–171.

[60] VIII 7, 5. There is some variation in the manuscripts. Strabo probably wrote Αἰγίου, though μεταξὺ Αἰγῶν καὶ Πελλήνης makes more sense, since to say that the village lay ' between Aigion and Pellene ' would mean that it might be anywhere in eastern Achaea. Perhaps what Strabo really meant was that it lay between Pellene and Aigeira, but he does not appear to have visited the Achaean cities himself, and was undoubtedly confused by the similarity of their names. Thus later in the same paragraph he says of Aigai (or Aiga) that νῦν μὲν οὐκ οἰκεῖται, τὴν δὲ πόλιν ἔχουσιν Αἰγιεῖς. This is surely a mistake, of Strabo's own, not of the manuscript reading. Compare VIII 7, 4, where he says that Aigai was united with Aigeira; geographical considerations make it certain that this version is correct.

[61] For full references, see Frazer's note on Pausanias VII 27, 4.

[62] *V. supra.* [63] Pausanias VII 27, 2. [64] Polybius II 39, 4.

[65] Dunbabin, *op. cit.* 151, 262 n. 1. Mr. Dunbabin also calls my attention to the use of the Achaean alphabet in Ithaca in the seventh century (*cf.* Miss L. H. Jeffery in *BSA* XLIII 82, 89). He points out that pottery found in Ithaca suggests that the island received a Corinthian colony at the time (*cf.* M. Robertson, *BSA* XLIII 122 f.); at all events Corinth seems to have monopolised its trade such as it was. Ithaca may be an example of an outlying Achaean community, dependent upon Corinthian commerce, though Robertson does not think so.

[66] *Cf.* Dunbabin, *op. cit.* 75 ff. Compare also *ibid.* 24, ' Commerce (at Sybaris) must originally have been secondary to agriculture ', and 38, ' Phokians and Lokrians seem, like the Akhaians, to have come west seeking somewhere to live, not to trade.' [67] Polybius II 39; Strabo VIII 7, 1.

[68] Dunbabin, *op. cit.*, especially 75, 83, 225 (note the absence of the Achaean cities from the table), 246.

From Achaea itself a few geometric vases are known. I have not seen those discovered by Mr. Zapheiropoulos at Lopesi near Pharai (Cook, *Archaeology in Greece 1952*, 33 (= *JHS* LXXIII 119)), but he kindly permitted me to study the contents of the grave excavated by him at Derveni below Mamousia (see *JHS* LXXII 99). The style of these vases certainly betrays backwardness and isolation, but they are, in my opinion at least, considerably earlier than the colonial period.

[69] Pausanias VII 18, 6. But see Frazer's note on the passage.

[70] Thucydides V 52. [71] VIII 7, 4. [72] VIII 7, 5.

The foundation of the western colonies did not raise the Achaean cities to a position of importance. We know nothing of their history during the seventh and sixth centuries except for a number of obscure notices of a long-drawn war between Pellene and Sicyon.[73] It was in this war that Orthagoras, first tyrant of Sicyon, rose to prominence, and the struggle continued into the reign of Cleisthenes. Pellene itself was taken and the wives and daughters of the citizens violated. All the coastal plain must have been lost for a time, and it seems to have been after this war that the city was established on its inaccessible mountain-top. Professor Ernst Meyer [74] believes that the subjugation and destruction of Donussa, the Homeric Gonoessa or Donoessa, by the Sicyonians, and the attack on Aigeira, when the Sicyonians were deceived by firebrands tied to the horns of goats, which they took for the torches of a relieving army, were incidents of this war, and this seems probable, though Pausanias places the affair of Aigeira in the time of the Ionians. This war seems to have been quite unconnected with the more ambitious schemes of Cleisthenes, and did not stop suitors from Sybaris and Siris coming to woo Agariste. The Achaeans do not seem to have co-operated very effectively with one another.

We next hear of Achaea during the Persian invasion of Greece, when the whole nation remained neutral with a unanimity which suggests, though it does not prove, that the Achaeans had already come to some arrangement for concerting their foreign policy. That this arrangement was a democratic league, similar to that of Hellenistic times, appears from the story in Polybius [75] of the Achaean mediation in Italy after the overthrow of the Pythagoreans. The exact date of this affair is uncertain.[76] Some time afterwards, according to Polybius, the Italiote cities again showed their trust in the Achaeans, when Croton, Sybaris, and Caulonia ‘ endeavoured completely to copy the Achaean constitution ’. ‘ First they appointed a common sanctuary and precinct of Zeus Homarios, in which they held their meetings and debates, then, adopting the customs and laws of the Achaeans, they resolved to conduct and manage their constitution according to them.’ As Polybius adds that this League was crushed by Dionysius of Syracuse, it must have been formed some time before 390 B.C., and almost certainly before 417 B.C., as in this year the Spartans reorganised the Achaean League, whose cities were henceforth oligarchically governed. Reverence for their mother country is a sufficient explanation for the Italiotes' choice of the Achaeans as arbitrators. The visit of Lysis the Pythagorean to Achaea is probably quite unconnected.[76a]

In the fifth century, then, the Achaeans managed their affairs through a democratic league, whose meetings were held in a common sanctuary of Zeus.[77] It seems that the league did not grow up out of an Amphictyony, like those of Delphi or Kalauria,[78] or that of the Ionian cities of Asia.[79] It was not a religious body, whose decisions sometimes had political importance, but a political body, which used the sanctuary of the god in the same way as the Athenians and their allies used the temple of Apollo at Delos.[80] It follows that the common temple and meeting-place were important as such; not for any special sanctity that attached to one particular spot. While the League consisted merely of Achaean cities, it was naturally most convenient to hold the meetings in the central plain, and accordingly, in Hellenistic times the place of assembly was Aigion. Pausanias [81] implies that before the earthquake of 373 it was Helike, or at least in the territory of Helike, and this seems reasonable in view of the early importance of the place. Whether the sanctuary lay between Helike and Aigion and was transferred to Aigion after the disaster,[82] or whether the Achaeans dedicated a new sanctuary in Aigion, is uncertain and perhaps of no great importance for my present purpose, though the discovery of the temple and the records laid up in it [83] would be of inestimable value. But if the Achaean League was not held together by religious ties, neither were its bonds exclusively racial. Before the middle of the fifth century [84] refugees from Mycenae had been admitted into the village of Keryneia, which later became an independent city and strong fortress. These refugees must, of course, have claimed kinship with the Achaeans (otherwise there seems no reason why they should have gone to Achaea at all), and their claim was doubtless admitted. But they will none the less have been aliens, for a few generations at least. There cannot have been enough of them to form an independent community at first; fifth-century Mycenae was a small place, and less than half the population came to Achaea.[85] Keryneia must have acquired much of the territory of Helike when it was divided among the neighbouring states after the earthquake of 373 B.C.,[86] and so risen to independence. The refugees will have ‘ become Achaeans ’, but perhaps they did not also become citizens of Helike. It is possible that they brought the name Keryneia with them from the Argolid; at all events this is not the Keryneia from which the famous hind came.[87] The Achaeans do not seem to have had any political motive in befriending the Mycenaeans, but they would hardly have helped the enemies of Argos and friends of Sparta after they had become allies of Athens.

---

[73] *Pap. Oxy.* XI 1365 (Jacoby, *FGrH* 105, no. 2), also *Pap. Oxy.* X 1241, III 2 ff. The account given by Aelian (*Var. Hist.* VI 1) of the capture of Pellene by Sicyon gives no clue to the date. Wilamowitz (*Hermes* XLIV 474), reading Πελλαναῖοι for the corrupt Ἀπελλαῖοι in Zenobius I 57, provides further evidence. (I owe these references to Ernst Meyer (*RE* XIX 1, 367, *s.v.* ‘ Pellene ’).)

[74] *Loc. cit.* Pausanias VII 26, 2 and 13.

[75] Polybius II 39, 4, Strabo VIII 7, 1, Iamblichus, *Vit. Pyth.* 263. I formerly doubted this story, but have been converted to belief in it by Larsen (*op. cit.*) and comments (in private correspondence) by Dunbabin and Professor Walbank, for which I am most grateful.

[76] Perhaps about the middle of the fifth century. I have not seen von Fritz, *Pythagorean Politics in Southern Italy* 72 ff., or Minar, *Early Pythagorean Politics* 73 ff.

[76a] Iamblichus, *Vit. Pyth.* 248–51.

[77] Called ‘ Amarios ’ in the oath of the people of Orchomenos already quoted (note 36 *supra*), ‘ Homarios ’ by Polybius and ‘ Homagyrios ’ by Pausanias (VII 24, 2). See also Farnell, *Cults of the Greek States* I 43, especially Note *c*; Aymard, *Mélanges Octave Navarre* 453 ff. Aymard points out that the various inscriptions do not determine whether the breathing was rough or smooth, and rejects the view that the god was originally Zeus Amarios, a god of the broad daylight. It is certainly easier to regard him as Hamarios or Homarios, a god ‘ qui adapte, qui réunit ensemble ’ (*ibid.* 467).

[78] *Strabo* VIII 7, 373.

[79] *E.g.* Herodotus I 170, VI 7.

Shortly after the arrival of the refugees, the Achaeans once more entered, or were forced into, Greek international politics. By 455 B.C. Athens had secured bases on the Gulf of Corinth at Naupaktos and Pagai, and in or about that year an Athenian fleet under Tolmides circumnavigated the Peloponnese, destroyed the naval arsenal of the Lacedaemonians, took Chalkis, a Corinthian possession in Aetolia, just outside the straits of Rhion, and defeated the Sicyonians in a battle in their own land.[88] Next year Pericles led another attack on Sicyon, embarking at Pagai, perhaps on the same ships that Tolmides had brought round the year before. After a victory in Sicyonian territory, the Athenians εὐθὺς παραλαβόντες ’Αχαιοὺς καὶ διαπλεύσαντες πέραν τῆς ’Ακαρνανίας ἐς Οἰνιάδας ἐστράτευσαν.[89] The scholiasts believed that this meant that the Achaeans and Athenians now entered into an alliance,[90] but I prefer Larsen's opinion [91] that the alliance had already been concluded, perhaps by Tolmides; this seems to be supported by Plutarch.[92] We are not told the motives which induced the Achaeans to attach themselves to Athens, or the terms on which the alliance was concluded. Achaea was exposed to the Athenian fleet, which might descend at any point along the coast and interrupt communication between the various cities, besides doing great damage, while the Spartans and their allies could hardly attack any Achaean city except Pellene in the east and Dyme in the west; the North Arcadian mountains, though frequently traversed by Hellenistic generals, seem to have been an insuperable obstacle to hoplite armies of the old model. But there is no suggestion that the Achaeans were coerced by fear of the Athenian fleet, which had, after all, other work to do than terrifying neutrals. More probably, they joined Athens voluntarily, out of their old enmity for Sicyon.[93] They may also have hoped for loot. At the beginning of the fourth century when Sparta was making war upon Elis many of the Arcadians and Achaeans were glad to join in and take their share of the plunder, καὶ ἐγένετο αὕτη ἡ στρατεία ὥσπερ ἐπισιτισμὸς τῇ Πελοποννήσῳ.[94] It may even be that the Achaeans seized their opportunity and joined in the attack on Sicyon without previous agreement. There would then be a large force collected which might be treated as a special assembly by the commanders and make an alliance with Pericles on the spot. But such a ' special assembly ' would include few representatives of the western cities, and this would be an irresponsible and irregular way of embarking on wars and alliances. More probably Larsen is right in supposing that the alliance had already been formed. At all events, Sicyon suffered and Pellene flourished. The dedication of a chryselephantine statue of Athena, the work of Pheidias, the leading Athenian sculptor, must surely belong to the period of Athenian ascendancy.[95] The Achaeans repaid the Athenians for their assistance by helping them in their operations against Oiniadai. There is no evidence at all that any Achaean interest was involved here or that the city would have joined the League had it been taken. Pausanias [96] tells a story of its capture by the Messenians of Naupaktos and recovery by the Acarnanians, but the details seem to be fictitious.

---

[80] Aymard (*Mélanges Cumont* 8) believes that the League developed out of an amphictyony, but has to admit that it had become completely secularised by the time it appears in history (cf. *ibid.* 21).

[81] VII 7, 2.

[82] So Strabo seems to imply (VIII 7, 5): Αἰγιέων δ’ ἐστὶ καὶ ταῦτα καὶ ‘Ελίκη καὶ τὸ τοῦ Διὸς ἄλσος τὸ Αἰνάριον (*sic*, read ’Αμάριον) ὅπου συνῄεσαν οἱ ’Αχαιοί. But on the other hand the sanctuary of Homagyrian Zeus noted by Pausanias (VII 24, 2) was certainly on the same bank of the Selinus as Aigion, and probably in or just below the city. And this seems to be the same as the grove mentioned by Strabo (*cf.* Frazer’s note on the passage and Pausanias VII 24, 4).

[83] Polybius V 93, 10.

[84] Pausanias VII 25, 6. A date as late as 460 is possible but unlikely in my opinion (see Gomme, *Commentary on Thucydides* I 409).

[85] Pausanias, *loc. cit.*

[86] Strabo VIII 7, 2.

[87] Pausanias could hardly have resisted telling the story if it had been. Moreover, the supposition that the hind came from Achaean Keryneia seems inconsistent with Apollodorus II 81.

[88] Thucydides I 108, 5. Dated 456–5 B.C. by Diodorus XI 84 and 456–5 by the scholiast on Aeschines II 75. See Gomme, *op. cit.* 320, also 401 ff. for a general chronological discussion. Diodorus gives Tolmides the credit for the capture of Naupaktos, but Gomme rejects this (*op. cit.* 304, on Thuc. I 103, 3). More probably Naupaktos was already in Athenian hands, whether the Messenians had been settled there or not. See also Larsen, *op. cit.* 799.

[89] Thucydides I 3, 2–3. Diodorus says that the fleet consisted of fifty triremes, the same figure that he gives for that of Tolmides (XI 84, 85). Probably the ships lay at Pagai all winter, while the crews came home on leave through the Megarid. Plutarch (*Pericles* XIX 2) gives the fleet a hundred ships.

It is clear that the Athenians regarded the Achaeans as in some way their dependants and subjects. Thus by the Thirty Years' Peace Athens gave up Nisaia, Pagai, Troizen, and Achaea, and in 425 B.C. Cleon demanded the return of these places.[97] This is not the way people speak of free and equal allies. But there is no evidence for the paying of tribute, and the only evidence for Athenian garrisons is the fact that Achaea is listed with Pagai and Nisaia.[98] In some ways this is convincing; the relationship between Achaea and Athens seems to be similar to that between Megara and Athens—a voluntary alliance against a powerful and dangerous neighbour. The Athenians garrisoned key points in Megarian territory; they may have done the same in Achaean territory, if they could spare the troops. (If Pellene was such a key point, we have another reason for the chryselephantine Athena.) But the Athenian garrison in the Megarid must have varied; we cannot suppose that three tribal regiments [99] were kept permanently locked up in Nisaia. And at Naupaktos the loyalty and martial qualities of the Messenians seem to have rendered a garrison unnecessary. Probably therefore we should not imagine that any part of the Athenian forces was permanently stationed in Achaean territory (such service, particularly if it continued all the year round, would have been most unpopular among the citizens), though Athens presumably claimed the right to send troops in time of need. In any case, a garrison large enough to coerce an unwilling population is quite unthinkable. It seems likely that the Athenians assumed control of Achaean foreign policy, probably by a sworn agreement that both parties were to have the same friends and the same enemies.[100] But all this is mere speculation.

---

[90] Gomme, *op. cit.* 325, note on Thuc. I 112, 3.

[91] *Op. cit.* 800, especially n. 17.

[92] *Per.* XIX 3: ἐκ δ' Ἀχαίας φίλης οὔσης στρατιώτας ἀναλαβὼν εἰς τὰς τριήρεις. The Athenians provided the ships, the Achaeans only the men.

[93] Larsen (*op. cit.* 801) supposes rather that Athens and Achaea were both trade rivals of Corinth, and co-operated to blockade the mouth of the Corinthian Gulf, Sicyon being drawn in on the Corinthian side ' by subservience to Sparta and the Peloponnesian League '. Certainly the Athenian purpose was to secure the mouth of the Gulf (against both Corinth and Sicyon), but Larsen's opinion of the Achaeans' motives arises from his mistaken ideas about their colonies.

[94] Xenophon, *Hell.* III 2, 26.

[95] Morgan (*Hesperia* XXI 334) would date this statue about 472 B.C., but without adequate evidence. It seems to me that the image of Athena on the Acropolis, to which Pausanias refers here, is more probably the chryselephantine statue in the Parthenon than the bronze Athena Promachos.

[96] IV 25.

[97] Thucydides I 115, IV 21.

[98] Larsen, *op. cit.* 801.

[99] Cf. *IG* I² 1085+ (Tod, *Greek Historical Inscriptions* I, no. 41).

At the beginning of the Peloponnesian War, Pellene was on the Spartan side, though the other Achaean cities remained neutral.[101] It seems likely that Pellene was already a member of the Peloponnesian League and did not first attach herself to the Spartan interest at the outbreak of war.[102] Directly the Athenian protectorate over Achaea was ended by the Thirty Years' Peace, Sicyon and her allies would have been free to avenge past injuries and provide for their future security. The exposed position of Pellene would enable them to intervene easily, probably without fighting. Very likely they had friends inside the city, and it may have been now that the oligarchic government which so long remained loyal to Sparta was established. The harder enterprise of winning over the whole Achaean League was not attempted, which suggests that neither Corinth nor Sicyon was alarmed by Achaean activities at the mouth of the Corinthian Gulf. Athens, not Helike or Patrai, was the rival to be feared, and Athens had at least been compelled to renounce her control of the south shore of the Gulf, and her short cut to western waters through the Megarid, though her position around Naupaktos and Chalkis remained unshaken.[103]

The Achaean League must have been weakened by the loss of Pellene, but it does not seem to have broken up. It appears from Thucydides [104] that the Achaeans had concluded treaties of friendship, though not of alliance, with both Athens and the Peloponnesian League. Up to what point in the war they continued their neutrality is not certain. In 429 B.C. the fleet which sailed out of the Corinthian Gulf to reinforce Knemos in Acarnania attempted to cross over from Patrai and [105] after its defeat the survivors took refuge at Patrai and Dyme [106] before rallying at Kyllene, the arsenal of Elis. This does not imply that the western Achaeans were not still neutral; we may well imagine the beaten fleet taking refuge in the nearest neutral waters before sailing to a friendly port to refit. The Peloponnesian fleet probably included a force from Pellene, which Thucydides names as one of the cities which provided ships.[107] This force, if it existed, was too small to deserve a particular mention, but its presence may have disposed Patrai and Dyme in the Peloponnesians' favour. When the reinforced and reorganised Peloponnesians returned to attack Phormio, their fleet lay in the bay of Panormos, just east of Rhion, supported by an army which must have marched through Achaean territory, probably from Elis through Dyme and Patrai rather than from Corinth and Sicyon along the coast of the Gulf of Corinth.[108] And after the battle the Peloponnesians set up a trophy and dedicated a ship which they had taken on the Achaean Rhion.[109] The Achaeans cannot have been strong enough to prevent the Peloponnesians from doing as they liked, but to allow anchorage and water to combatants in time of war does not seem to have been regarded as a breach of neutrality,[110] and there is no evidence that the Peloponnesians were helped in any other way. The Athenians did not attempt reprisals against Achaea, as they might have done after Phormio's victory, if they had regarded the Achaeans as enemies. I would therefore suppose that Achaean neutrality was violated by the Peloponnesians rather than that western Achaea had already been won over to their side.[111]

---

[100] Cf. *IG* I^2 90+ (Tod, *op. cit.* no. 68, 19), the record of an alliance between Athens and the Bottiaeans in 422 B.C.

[101] Thucydides II 9, 2.

[102] Larsen, *op. cit.* 802.

[103] *Ibid.*

[104] *Loc. cit.* Τούτοις δὲ (*i.e.* Achaeans and Argives) ἐς ἀμφοτέρους φιλία ἦν. Φιλία must mean more than a vague feeling of benevolence, and the existence of a definite treaty between Argos and Sparta is quite certain (Thucydides V 14, 4).

[105] Thuc. II 83, 3.

[106] Thuc. II 84, 3–5.

[107] Thuc. II 9, 3. Compare II 80, 3, where it is said that the fleet ἔκ τε Κορίνθου καὶ Σικυῶνος καὶ τῶν ταύτῃ χωρίων ἐν παρασκευῇ ἦν.

[108] Thuc. II 86, 1.

[109] Thuc. II 92, 5.

In 419 B.C. Patrai seems to have been still controlled by a democracy. In that year Alcibiades went through the Peloponnese with a small force of Athenian hoplites and archers, to which he added reinforcements from the Argives and other Athenian allies (Mantinea and Elis must be meant). Marching from Argos to Mantinea and from Mantinea to Elis, he would be in friendly territory. From Elis he turned north to Patrai, which seems to have been the real object of his expedition, whatever business he may have settled on the way. According to Thucydides, he persuaded the people of Patrai to extend their walls to the sea, and he himself had it in mind to build another fort on the Achaean Rhion. But the Corinthians and Sicyonians and those who would be harmed by the fortification came to the rescue and prevented him. Plutarch preserves a retort by Alcibiades to an opponent during the debate at Patrai, but wrongly places the affair after the battle of Mantinea, associating the long walls of Patrai with the long walls of Argos.[112]

Few though the details of the story are, they do enable us to reach some valuable conclusions. Alcibiades wanted the control of the mouth of the Corinthian Gulf, not the alliance of the Achaean League. There is no mention of the Achaean assembly or of debates in the precinct of Zeus Homarios. Pausanias[113] says that when the Lacedaemonians went to war with the Athenians the Achaeans were warm allies to the people of Patrai and no less friendly to the Athenians, but even if this means anything, or does not refer to the First Peloponnesian War, it is still clear that Patrai concluded a military agreement with Alcibiades, the official representative of Athens,[114] without reference to the other members of the League. In fact, the League no longer controlled the foreign policy of its members. Perhaps it had ceased to do so effectively after 429 B.C., when it became clear that it was not strong enough to protect their neutrality.

That public opinion in Patrai was divided appears from Plutarch's story and is suggested by Thucydides' account: the Corinthians and Sicyonians gave help (βοηθήσαντες), presumably to a party attached to their cause. We have here the first hint of class or party division in Achaea. Alcibiades withdrew without fighting, either because his forces were outnumbered by the Corinthians and their allies or because neither side wanted to go to war over Patrai. The second explanation seems to be the right one. If the Corinthians had collected an overwhelming force they would hardly have left Patrai without winning it over to their own side. As it was, the Achaean cities, except Pellene, were left to wrap themselves in the remaining rags of their neutrality while their fate, and that of the whole Peloponnese, was being decided in the campaigns of 418 B.C. The men of Pellene, though not present at the battle of Mantinea, played their part in the invasion of the Argolid earlier in the year,[115] and they received their reward when the victorious Spartans were free to settle the affairs of the Peloponnese.

Thucydides notes briefly that in the summer of 417 B.C. the Lacedaemonians regulated the affairs of Achaea, which had previously been unfavourable to them.[116] The nature of the reorganisation can be guessed though it is nowhere expressly described. Oligarchies were established in the various Achaean cities;[117] we are not told the qualifications for membership of the governing class, but they do not seem to have been strict.[118] Since Sparta wanted Achaean military support, we may guess that the franchise was confined to the hoplite class,[119] but this is a guess and no more. The ruling class must have been made up mainly of small farmers and landowners. The ship-owners and traders like Lykon (on whom see note 123) were drawn by their interests to the Athenian side, and cannot have been allowed any great share in the government. There is no evidence that they were either numerous or important. It does not seem that there were any really wealthy men in Achaea, though during the fourth century some of the gentry of Pellene (the wrestlers Promachos and Chairon, whose careers Pausanias contrasts (VII 27, 5 ff.)) had the leisure to practise sport and even to acquire polite educations. The fact that many Achaeans went abroad to serve as mercenaries after the Peloponnesian War cannot be taken as evidence that the oligarchic government had reduced many of the people to poverty and discontent. Xenophon[120] remarks that most of his fellow-soldiers were men of substance and property, drawn by ambition to enter the service of Cyrus.

---

[110] *Cf.* Thuc. VI 44, 2.

[111] But see Larsen, *op. cit.* 803.

[112] Thuc. V 52, 2; Plutarch, *Alcibiades* XV 3.

[113] VII 6, 4.

[114] Thuc. *loc. cit.*, στρατηγὸς ὢν Ἀθηναίων.

[115] Thuc. V 58, 4; 59, 3; 60, 3.

[116] Thuc. V 82, 1.

The governments inside the various cities were doubtless republican in form,[121] and the League as a whole was also constitutionally governed. The common assembly of the Achaeans met. The individual states had their rights and were prepared to uphold them,[122] but all citizens of Achaean cities were Achaeans, as in Hellenistic times.[123] It should be noted, however, that we have no evidence for the extension of Achaean citizenship to foreigners (other than the refugees settled at Keryneia) before 389 B.C., by which date the union of cities through common citizenship was no longer a novelty in Greek political practice, though the unions of Athens with Samos and Argos with Corinth, both democratic and hostile to Sparta, had been short-lived.

Pellene was more important and more closely attached to Sparta than any other Achaean city, but not the mistress of the League, at any rate during the fourth century. In the winter of 413–2 B.C. Pellene was the only Achaean city named in the list of Spartan allies whom Agis ordered to prepare ships.[124] Sicyon, Arcadia, and Pellene were together charged with ten ships (the Arcadians presumably supplied men and timber). A ship from Pellene was later lost at Kynossema. But in the fleet that sailed to Corcyra in 373 B.C.[125] there was an Achaean

[117] The Achaean oligarchies are first mentioned in 367 B.C., Xenophon, *Hell.* VII 1, 42–3; for the date see Diodorus XV 75, 2. But it seems probable that they were established in 417 (Larsen, *op. cit.* 804. *Cf.* Thucydides I 19: Aristotle *Pol.* 1307b20). The fact that the government of Patrai appears to have been democratic in 419 B.C. is a strong reason for supposing that western Achaea was not yet attached to the Peloponnesian League.

[118] Xenophon (*loc. cit.*) says that ' the best men ' were not a few.

[119] Miss Lorimer (*Homer and the Monuments* 165, 195) remarks on the use of the θύρεον among the Achaeans down to the time of Philopoemen (Pausanias VIII 50, 1) and suggests a survival of Homeric armour, But it is clear that in the late fifth and fourth centuries the usual hoplite equipment was used in Achaea. Xenophon (*Anabasis* VI 2, 16) expressly says that the Achaeans among the Ten Thousand were ὁπλῖται πάντες. These men were mercenaries serving abroad. But certainly the Achaeans who fought at the Nemea in 394 B.C., or by the side of the Spartans in 369, must have been equipped in the same way as the rest of the Spartan allies.

The army which Philopoemen reformed was hardly more Achaean (in the old sense of the word) than he was himself. I believe that Pausanias is wrong when he says that Philopoemen made his men use Argolic (*i.e.* hoplite) shields. Philopoemen seems to have organised a phalanx on the Macedonian model, as Cleomenes III had already done at Sparta. (The spear used was a σάρισα: Plutarch, *Philopoemen* IV 2: *cf.* Polyaenus VI 4, 3: Plutarch, *Cleomenes* XI 2). The tactics and equipment of the Achaean army before the time of Philopoemen reflect the character of Aratus of Sicyon and were not inherited from the prehistoric past. The Achaean slingers who so distinguished themselves at the siege of Same in 189 B.C. (Livy XXXVIII 29) are quite unknown to earlier history. Yet Xenophon was in great need of light artillery on the retreat from Kunaxa.

[120] *Anabasis* VI 4, 8.

[121] Larsen, *op. cit.* 797.

[122] Diodorus XV 49, 2. Strabo VIII 7, 2.

[123] Wilhelm, in *Hermes* XXIV 110 ff., discusses an Athenian inscription in favour of an Achaean named Lykon, who in return for past services to Athens is permitted to export goods by sea from Achaea. Wilhelm very convincingly connects this permission with the Athenian blockade of the Peloponnese at the time of the great expedition to Syracuse (Thucydides VII 17, 19, 31, 34). Lykon's home city is not named, which must mean that he was officially an Achaean, not a man of Patrai or Aigion or Dyme or wherever he lived, at least in respect of international affairs. For the extension of Achaean citizenship to Calydon in or before 389 B.C. *v. infra.* The Achaeans mentioned in the *Anabasis* are called Achaeans, without their cities being named, but this is not necessarily significant, as the cities of many (but not all) of the Arcadians are not named either.

[124] Thucydides VIII 3, 2; *ibid.* 106, 3.

[125] Xenophon, *Hell.* VI 2, 3.

contingent (probably a small one, from its position in the list), and Pellene is no longer expressly named. In 394 B.C. at the battle of the Nemea Xenophon names the Achaeans on the left of the Spartan allies, opposite the Boeotians, but in his description of the fighting speaks only of the men of Pellene.[126] It is unfortunate that he makes no mention of the Achaeans when numbering the two armies. We cannot therefore say whether most of the Achaean force came from Pellene or not: if it did, he may simply have used Ἀχαιοί and Πελληνεῖς as synonymous terms.

Possibly the Spartans showed more favour to individual citizens of Pellene than to men from the rest of Achaea. One of the few Achaeans known to us by name, Drakon of Pellene, was appointed governor of Atarneus by Derkylidas,[127] who may have wished to compliment his native city as well as to make use of his abilities. (Drakon is not mentioned in the *Anabasis*, and so was probably not a mercenary.) But by the time of the King's Peace in 387 B.C. the other Achaean cities cannot have been subordinated to Pellene. Even earlier, in 389, we find the Achaeans acting as a body, without Pellene taking the lead or being particularly interested, as far as we can learn from our sources.[128] The Achaeans, who held Calydon and had made the Calydonians citizens, persuaded the Spartans to send an expedition under King Agesilaus to help them against the Acarnanians. This expedition might be regarded as part of the grand strategy of the Corinthian war. The previous year Agesilaus had ravaged the Corinthian homeland; now he attempted to close the mouth of the Gulf and cut Corinth off from help from Acarnania.[129] But Xenophon is quite insistent in describing the campaign as a diversion, undertaken at the urgent request of the Achaeans. Their task hitherto had been to join the Spartan army whenever they were summoned and follow wherever they were led, as they had done not only in the Corinthian war but also against Elis.[130] Now they threatened to withdraw from the war in the Peloponnese and cross over to fight the Acarnanians. This suggests that Xenophon, a skilled professional soldier with many friends at Sparta, did not regard the campaign as directly connected with the Corinthian war. To him the Achaeans were valuable to Sparta for the contingents they supplied to the allied fleet and army, and the object of the expedition was to stop them from deserting the alliance. The Achaeans own motive in admitting Calydon to their League may have been to secure the mouth of the Gulf, but to Sparta this was apparently unimportant. The expedition was not wholly successful, as the Peloponnesian troops were at a disadvantage against the light-armed mountaineers, but enough harm was done to the Acarnanians to make them conclude peace with the Achaeans. In 376 B.C. Achaea was one of the ten divisions into which the Spartan alliance was reorganised.[131] The object of the reorganisation was to perfect the arrangements for raising soldiers and money. In 383 B.C. the allies had been allowed to provide money instead of troops, and the detail in Diodorus, that one cavalryman was reckoned as the equivalent of four hoplites, is confirmed by Xenophon.[132] Presumably each division as a whole was made responsible for the contributions of its members. It seems unlikely that the divisions were of equal strength; it would be surprising to find Achaea the equal of Corinth and Megara combined. But the latter had suffered terribly in the war. The new organisation seems to have achieved its purpose. The failure of Mnasippos to pay his troops at Corcyra in 373 B.C. was not for want of money supplied by the allies.[133]

---

[126] *Hell.* IV 2, 18–20.

[127] Xenophon, *Hell.* III 2, 11.

[128] Xenophon, *Hell.* IV 6, 1 ff., *Agesilaus* II 20, Plutarch *Agesilaus* XXII 5.

[129] Compare Larsen, *op. cit.* 804. There were Acarnanians on the Corinthian side at the Nemea in 394 B.C. (Xenophon, *Hell.* IV 2, 17, following the *MS.* reading.)

[130] Xenophon, *Hell.* III 2, 23, 26.

[131] Diodorus XV 31, 2.

[132] *Hellenica* V 2, 21.

[133] At least in Xenophon's opinion (*Hell.* VI 2, 16).

The position of the Achaeans inside the Peloponnesian League is discussed by Larsen,[134] who concludes that after 417 B.C. they either had a single vote in the League assemblies or none at all. That they had none seems to me very unlikely, but they must have voted together, for if each city had been allowed a separate foreign policy their own League would have been dissolved. It is notable that in the affair of Calydon the Achaeans sent ambassadors to Sparta directly, without referring the matter to the congress of the Peloponnesian League, and it was the Spartan Ephors and Assembly who promised to send help. The other allies were apparently not consulted, though they provided part of the army.[135] But this does not mean that the Achaeans had no part in the congress of the allies. The Peloponnesian League was at war, and the way in which the war was conducted was for Sparta to decide. Whereas in 383 B.C., when the problem of the expedition against Olynthus was laid before the allies,[136] the question was one of war or peace, and so had to be decided by the vote of the League.

We must now consider the question of 'states' rights'—a difficult problem in any confederacy. In other words, which of their affairs did the individual cities manage for themselves, and which had to be submitted to the Κοινὸν τῶν 'Αχαιῶν? Both Strabo and Diodorus mention this Κοινόν in connection with the story of the destruction of Helike in 373 B.C. But they do not make it clear whether it was, in theory, an assembly of all citizens (at least, all citizens qualified to share in the oligarchic government) or merely a council composed of a limited number. I prefer to regard it as an assembly like that of the later League. Something of the relationship between this Κοινόν and the individual cities can be gathered from the story of Helike. The calamity attracted the attention of Aristotle [137] as a natural phenomenon; he was interested in the great comet which appeared, and in the winds that accompanied (and in his opinion caused) the earthquake. But the excellent moral lesson was what chiefly appealed to later writers,[138] and the earthquake and tidal wave which the anger of Poseidon directed against the impious city are certainly more famous than any other incident in Achaean history. It is surprising that Xenophon makes no mention of the catastrophe in the scattered notes and reminiscences which form the later books of his Greek History. But the want of a contemporary account is to some extent supplied by Strabo,[139] who quotes Heraclides Ponticus to the effect that the Ionians, whose ancestors had been expelled from Helike, sent ambassadors to ask the inhabitants of Helike for their statue of Poseidon or at any rate the plan of the temple, and when the men of Helike refused the Ionians appealed to the general assembly (τὸ Κοινόν) of the Achaeans, which voted in their favour. But Helike refused to obey. The disaster followed during the next winter. The city and all the territory, twelve stades wide, between it and the sea were swallowed up, and though the Achaeans sent two thousand men to bury the dead they were unable to recover the bodies. Afterwards they divided the land of Helike among its neighbours and gave the Ionians a plan of the temple. Diodorus [140] adds a number of details. The Ionian cities were no longer able to hold their common festival near Mykale on account of wars, and so moved to a safe place near Ephesus. It was the Delphic Oracle which advised them to obtain a copy of their ancestral altars from the Peloponnesian Achaea. Diodorus differs from Strabo in making the Ionian ambassadors apply to the assembly of the League first. The men of Helike refused to obey the League because they had an ancient saying that they would suffer danger when Ionians should sacrifice at the altar of Poseidon; the precinct was their own, not the common property of the Achaeans. And when the Ionians, trusting in the decree of the League, proceeded to sacrifice on the altar, the people of Helike seized upon them (Aelian says that they were killed). It was this sacrilege that the god avenged,

[134] *Op. cit.* 810 ff.

[135] Xenophon, *Hell.* IV 6, 3.

[136] Xenophon, *Hell.* V 2, 11 ff.

[137] *Meteor.* I 6, 343b19 ff.

[138] See Frazer's note on Pausanias VII 24, 6.

[139] VIII 7, 2.

[140] XV 49. Probably derived from Ephorus.

and he punished Bura too for taking the part of Helike (this feature of the story is obviously an afterthought, to explain why the earthquake struck Bura). Polyaenus [141] preserves a different account among the tales of violence and black treachery which he supposes to convey useful lessons to the would-be strategist. Few of the details concern us, but in this story the impiety of the men of Helike consisted in their giving up to the representatives of Phrikodemos, tyrant of Oiantheia, one of his subjects, a girl named Themisto, who had taken refuge at the altar of Poseidon.

We may conclude from Strabo's story that each city of the League preserved its own territory within distinct boundaries (this is in accordance with the practice of ancient and modern confederacies, and might have been assumed without confirmatory evidence). More interesting are the details about relations with foreign powers. If Strabo is to be preferred above Diodorus, and if Polyaenus is credible, we have two instances of foreign powers negotiating directly with a member of the League without first referring to the Κοινὸν τῶν Ἀχαιῶν. In Strabo's account it is only after Helike had refused their request that the Ionians appealed to the assembly of the League, and in Polyaenus's story the League plays no part at all. But the more circumstantial account of Diodorus seems preferable to Strabo's hurried and probably careless summary of Heraclides. The ambassadors are ambassadors to the League; the League decides, but Helike refuses to obey on religious grounds. We are reminded that the members of the Peloponnesian League might plead religious scruples as a reason for refusing to obey the decision of the majority.[142] On the other hand, it is just possible that the Achaean League had no rights over the temples and religious affairs of its members even when foreign powers were concerned. Thus in 228 B.C. Rome sent ambassadors to Corinth and the Corinthians admitted the Romans to participation in the Isthmian Games, apparently without consulting the rest of the League.[143] The affair of Themisto, if it is to be considered at all, must be regarded in quite a different light from that of the Ionian ambassadors. It is an extradition case, such as nowadays would be heard in a police court, and though relations between Phrikodemos and the Achaean League would certainly be affected, no question of foreign policy was directly raised.

It is amusing, thought perhaps irrelevant, to speculate on the motives that underlay the sending of the Ionian embassy. In 373 B.C. Sparta had ceased to be a danger to Persia. The defeat at Naxos three years earlier had destroyed the last possibility that Agesilaus or one of his successors might one day renew the claim to leadership of the Greek cities of Asia Minor which had been abandoned at the conclusion of the King's Peace. But Athens had revived her fleet and her confederacy; she was at war with Sparta, and had quarrelled with Persia over the conduct of Iphicrates.[144] It may have seemed to both Persia and Sparta that the moment was a proper one for reminding the Ionians that the Peloponnese, not Attica, was their true home. As for the oracle, Delphic Apollo was usually favourable to Sparta and often on the side of the big battalions and long purses.

If some deep scheme of Spartan diplomacy underlay the whole business, we can understand the vote of the Achaean assembly, who might have been expected to support their own countrymen rather than foreigners. We can also understand why ten Spartan ships were lying off Helike,[145] though the disaster happened on a winter night [146] when they should have been safely in their home ports. The superstition of the men of Helike had led them to oppose not merely the Achaean assembly but Sparta herself. The story is one that lends itself to the imagination. We may picture the guilty and tumultuous city, cowed by the presence of the

---

[141] VIII 46.

[142] Thucydides V 30, 1.

[143] Polybius II 12, 8.

[144] Diodorus XV 41–3.

[145] Aelian, *Nat. Anim.* XI 19.

[146] Strabo, *loc. cit.* Diodorus XV 48, 2.

Spartan squadron and by unnatural portents (Aelian says that five days before the earthquake all mice and other small creatures left the city in swarms along the road leading to Keryneia; the people marvelled but did not understand the cause). Overhead the comet blazes; the great wind blows from the sea. And then in the middle of the winter night comes the judgement of God. It is no wonder that the story of Helike was long used as an example of divine vengeance against those who injure suppliants.

The Achaeans survived the disaster with their League (and, strangely, their reputation for justice in international affairs) unbroken. We know for certain one further fact about the relationship between the League and its members. Federal garrisons could be placed in the various cities. Diodorus[147] records that Epaminondas, during the campaign of 367 B.C., liberated Dyme, Naupaktos, and Calydon, which were garrisoned by the Achaeans. Dyme and Calydon were certainly members of the league at this time: presumably Naupaktos was also a member, on the same footing as the other two. It had been handed over to the Locrians when Sparta expelled the Messenians after the Peloponnesian war,[148] but perhaps its new inhabitants found it best to place themselves under Achaean protection. In 389 B.C. the Aetolians hoped that Agesilaus would make Naupaktos over to them in return for their permitting him to retire unmolested through their country; this suggests to me that its exact status was undefined at the time. Agesilaus had made his expedition into Acarnania with the express purpose of gratifying the Achaeans by helping to secure their possessions in northern Greece, and this purpose would have been defeated by ceding an Achaean city to Aetolia.[149]

The Hellenistic League often maintained garrisons in strategically important cities. But I recollect no example of a fortress being treated as Federal territory, the property of the League as a whole but not of any one member. It is clear from Polybius II 51–2 that Acrocorinth, though held by a Federal garrison, was still Corinthian territory. It seems unlikely therefore that Naupaktos was a sort of Achaean Fort Sumter. Moreover, its liberation by Epaminondas did not separate it from Achaea, to which it still belonged in 341 B.C., and from which it was finally detached by Philip of Macedon.[150] I suppose therefore that all three cities were members of the League and that all were garrisoned by Federal forces in 367 (Dyme, lying on the border of Elis and with its seaboard outside the straits of Rhion, was particularly exposed and so particularly in need of a garrison).[151] These garrisons must have been maintained by the oligarchic party, and their expulsion would have seemed to the democrats to be an act of liberation. They were probably composed of mercenaries, but, as Achaea was itself a recruiting-ground for foreign armies, many of the mercenaries in the service of the League may have been Achaean by birth, not foreigners. It is interesting to speculate upon a possible parallel between these garrisons and the British Regular Army in the nineteenth century.

The existence of Federal forces implies the existence of a Federal treasury, which first struck its own coins during the fourth century B.C. Mr. E. S. G. Robinson, to whom I am indebted for much valuable advice, recognises two distinct issues, one belonging to the second, the other to the third quarter of the fourth century. The first issue (struck probably after the battle of Leuctra—compare Head, *HN*² 416) has as types Zeus, Athena, and an uncharacterised female head, which must be that of Aphrodite, the third patron deity of the League. (*V.* note 36 *supra* for references to the oath by Zeus, Athena, and Aphrodite taken on the occasion of the admission of Orchomenos to the League.) This issue is Peloponnesian in style and parallel in denominations, etc., to that issued by the Arcadian League and Messene under Theban influence. It should therefore be attributed to the brief period when Achaea was attached to the Theban alliance, probably to the democracy established by the Theban harmosts. The short life of this democracy accounts for the rarity of its coins.

---

[147] XV 75, 2. The garrison in Calydon was probably established in or before 389 B.C. (Xenophon, *Hell.* IV 6, 1), but the word φρουρά, as used by Xenophon, often means an expedition rather than a fixed garrison (e.g. *Hell.* V 4, 47 πάλιν ἔφαινον φρουρὰν οἱ ἔφοροι εἰς τὰς Θήβας) and so in this passage φρουρεῖν ἠναγκάζοντο may mean ‘ they were compelled to fight a campaign ’ rather than ‘ to keep a garrison ’.

[148] Diodorus XIV 34, 2. See the discussion in L. Lerat, *Les Locriens de l’Ouest* II 44 f., who concludes that there is no means of knowing when Naupaktos became Achaean (he thinks, after 389).

[149] Xenophon, *Hell.* IV 6, 14. Larsen (*op. cit.* 807) supposes that Naupaktos was already in Achaean hands, and certainly Agesilaus may have deceived the Aetolians with false promises, or even planned to betray his allies in order to extricate his army.

[150] Demosthenes IX 34, Larsen, *loc. cit.*, Strabo IX 4, 7, Roebuck ,*CPh* XLIII 77, Lerat, *op. cit.* II 149.

[151] *Cf.* Polybius IV 59 ff.

The second issue Mr. Robinson describes as 'scarce but not very scarce; AR of the same types and denominations as the 3rd–2nd century issues, with Æ of the same types as AR'. He dates this issue about 360–320 B.C.

I would myself account for the absence of Federal coins before the Battle of Leuctra by supposing that the Treasury under the aristocrats was little more than a war-chest. While the forces of the League were engaged in unprofitable expeditions on Sparta's behalf no surplus from which to strike coins would be available. But during the second half of the fourth century the League hired its army out to foreign powers (*V. infra*, p. 91), and the sums thus raised may have been paid into the Federal Treasury.

The individual cities must also have had treasuries, and those that were wealthy enough had the right to strike coins,[152] though only Aigai and Helike seem to have done so. It is perhaps more than a coincidence that both of these cities possessed famous temples. Both stood in fertile maritime plains, and it seems likely that Aigai prospered above its neighbours until the peace of the Peloponnese was broken by the Theban invasions, when its people were driven to take refuge on the strong hill of Aigeira. This would agree with the date (*c.* 500–370) assigned to its coins; moreover, the failure of Polybius to list Aigai among the Achaean cities is best accounted for by the supposition that it was no longer in existence at the time the old League was dissolved.[153]

So much for the organisation of the League during the period of Spartan ascendancy. After the battle of Leuctra the oligarchies of the Peloponnese rallied to the Spartan side, the Achaeans along with the rest. The revolts that broke up the Peloponnesian League were not so much revolts of the subject allies against Sparta as risings of the lower classes in the various cities against their rulers.[154] The Achaean oligarchies were not overthrown at first, and it may have been the stability of their government that induced the Thebans and Spartans to invite them to arbitrate in 371 B.C. But the arbitration came to nothing, and the fighting continued.[155] When the Thebans invaded the Peloponnese most of the Achaeans seem to have tried to keep out of the war, but Pellene was forced by her exposed position to play her part. Contingents from Pellene helped in the defence of Sparta in 370 B.C.[156] and that of the Isthmus in 369: in the latter year Pellene had to withstand an attack by the Thebans, which seems to have been repulsed.[157] But in 367 B.C. Epaminondas made an expedition with all the forces of the Theban alliance against Achaea, and the oligarchs came to terms with him, giving pledges that they would be the allies of Thebes and follow wherever they were led. In return, he promised neither to exile the aristocracy nor to change the constitution. But the Arcadians and the revolutionaries (οἱ ἀντιστασιῶται) in Achaea blamed Epaminondas for leaving the country ready prepared for the Spartans. Therefore the Thebans sent harmosts who joined with the proletariat to drive out the aristocracy and set up democracies in Achaea. But the aristocrats, being numerous, combined, and attacking the cities one at a time overcame their enemies in detail. And after their return they no longer attempted to stay neutral, but were eager to fight on the Spartan side.[158] Clearly the one hope for the oligarchies lay in the Spartan alliance. We are not told where the aristocrats went during their brief period of exile; perhaps to Elis.

---

[152] On the coinage of Aigai see Head, *HN*² 412, on that of Helike, *ibid.* 414. I cannot agree with Weil (*Zeitschrift für Numismatik* VII 361) that the coinage of these cities shows that they had seceded from the League. Dyme also coined from about 350 B.C. (*HN*² 414).

I note that a coinage of Arcadia was struck in the fifth century (*HN*² 444, 447) at a time when the Arcadians made no pretence of federal unity.

[153] Xenophon, *Hell.* VI 4, 18. Note the emphasis on the influence of the party of Stasippos at Tegea and the aristocrats of Mantinea in bringing their cities to the Spartan side.

[154] Compare Xenophon, *Hell.* VI 5, 6 ff., on the course of events at Tegea, also Diodorus XV 40, which seems to apply rather to the events of 370–69 B.C. (*ibid.* 59, Xenophon, *loc. cit.*) than to those of 375–4.

[155] Polybius II 39, 8–10; Strabo VIII 7, 1. We have only Polybius's word for this incident, but it may well be true. Cary, *CQ* XIX 165 f., *cf.* Larsen, *op. cit.* 805.

[156] Xenophon, *Hell.* VI 5, 29; VII 2, 2.

During the interval between Epaminondas's expedition and the restoration of the oligarchies, Pellene played a rather inglorious part in the war of Euphron, tyrant of Sicyon, and the Thebans against Phlius.[159] Xenophon says that Euphron conspired with the Argives and Arcadians to make himself tyrant at the time of the democratic revolution in Achaea.[160] Diodorus puts his rise to power in 368/7 B.C.[161] The heroic defence of Phlius was assisted by the Athenian general Chares, whose exploits Diodorus relates under the year 367/6 B.C.[162] But by this time Pellene was once more on the Spartan side, for the first action of Chares was to escort the non-combatants out of Phlius to Pellene.[163] Moreover, Chares was recalled from the Peloponnese because of the capture of Oropos by 'the exiles'[164] of Themison, tyrant of Eretria,[165] and this event Diodorus places in 366/5. Probably therefore the campaign of Chares belongs to 366 B.C., and the co-operation of Pellene with Euphron to 367. But the chronology of these events is very hard to disentangle. Xenophon's notes on Euphron's career and the affair of Phlius are confusing. The Achaean aristocrats may have found their return made easier by the heavy losses inflicted upon Pellene by the defenders of Phlius.

After the restoration of the oligarchies the Achaeans continued to make war in the Spartan interest. In 365 B.C. they gave effective aid to Elis, which was threatened by an Arcadian invasion, but the men of Pellene were called home to crush a general insurrection of the common people, which the Arcadians had stirred up.[166] Next year, when the Arcadians celebrated the Olympic games on behalf of Pisa, the Achaeans were summoned to the help of Elis,[167] but they do not seem to have taken part in the battle in the Altis, perhaps because they were still engaged with the insurgents at Pellene. The aristocrats prevailed in the end, and Achaea joined with Athens, Arcadia, Elis, and Phlius in the coalition of 362 B.C. against Thebes.[168]

In the Sacred War Achaea was on the side of Phocis, being influenced, it would seem, by the treasures of Delphi rather than by enmity for Thebes or friendship for Sparta.[169] The Achaean state, like the contemporary Spartans[170] or the eighteenth-century princes of Hesse, now hired out its army to the best paymaster.

---

[157] Xenophon, *Hell.* VII 1, 15–18. Sicyon was also attacked, and joined the Thebans according to Diodorus XV 68–9 (Diodorus does not mention Pellene). Larsen (*ibid.*) believes that Pellene also joined Thebes at this time.

[158] Xenophon, *Hell.* VII 1, 41–43. *Cf.* Diodorus XV 75, 2.

[159] Xenophon, *Hell.* VII 2, 11 ff.

[160] Xenophon, *Hell.* VII 1, 44.

[161] XV 70, 3.

[162] XV 75, 3.

[163] Xenophon, *Hell.* VII 2, 18.

[164] *Ibid.* 4, 1.

[165] Diodorus XV 76, 1. Diodorus does not mention Chares in connection with this affair.

[166] Xenophon, *Hell.* VII 4, 12 ff., especially 17–18. Compare Diodorus XV 77, 1–4.

[167] Xenophon, *Hell.* VII 4, 28.

[168] *Ibid.* 1, 18. Compare *CIA* II 57*b*. 112 (Dittenberger, *Sylloge*^{3} 83); Diodorus XV 84, 4; 85, 2.

[169] Diodorus XVI 30, 4; 37, 3.

[170] *Ibid.* But a more noteable, and sadder, example of the attempts of the Spartans to turn their military reputation into hard cash is the last campaign of the aged Agesilaus.

The later history of the League can be passed over rapidly. There were Achaeans on the allied side at Chaeronea.[171] In Philip's settlement of Greece the League lost its possessions on the north side of the Corinthian Gulf[172] and shortly afterwards Alexander deprived Pellene of its freedom.[173] The lawless cruelty of the tyrant Chairon towards the families of the aristocrats may have been due to the bitterness of class warfare rather than to the teaching of the Academy. The other Achaean states remained free, and joined with King Agis of Sparta in the enterprise which Antipater crushed at the ' battle of mice ' in Arcadia.[174] Even after this defeat, the League continued to exist; the date of its dissolution is not known, but it was some time after 324 B.C.[175]

The history of Achaea is a good example of the influence of geography upon political development. The land is poor, and there is no evidence that any Achaean of the archaic or classical period amassed even a moderately large fortune. There are no outstanding personalities in early Achaean history, but the absence of any very wealthy class encouraged the development of a stable, if limited, republican constitution. The broken nature of the country and the difficulty of communication by land prevented the rise of a centralised city state, but the divisions of Achaea were not cut off from each other like the Arcadian cities, for they were linked together by the sea and the Gulf of Corinth. Hence the federation of Achaea was both older and more enduring than that of Arcadia.

The influence of the early Achaean League upon contemporary political theory and practice seems to have been negligible. Lykomedes and the Arcadians looked to Boeotia for the model of their confederacy, and the notices of Achaea in the writings of the philosophers are few and unimportant. Plato and Aristotle were still thinking in terms of the ideal city. Aristotle wrote, or had prepared for him, works on the ' Constitution of Achaea '[176] and ' Constitution of Pellene ',[177] but does not seem to have been greatly interested in the federal experiment. But we have traced the history of the old League to the beginning of the Hellenistic age, and seen that some at least of its institutions resemble those of the time of Aratus and Philopoemen. When the Achaean cities came together once more after the period of Macedonian domination, there must have been many people still alive who could remember the first League, and it seems to me certain that its constitution must have inspired the men who dared to reassert the liberty of Greece.

J. K. Anderson

---

[171] Pausanias VII 6, 5. Compare Plutarch, *Demosthenes* XVII 4.

[172] Note 150 *supra*.

[173] Note 3 *supra*.

[174] Curtius VI 1–2. *Cf.* Diodorus XVII 62–3.

[175] Hypereides V (I) 18 mentions the common assemblies of the Achaeans.

[176] Mentioned by Sopater (Phot., *Bibl. Cod.* 161) (1550b16).

[177] Frag. 526 (1567b40 ff.). The existence of this separate work reflects the detachment of Pellene from the League during so much of its history.

THE HERAEUM AT PERACHORA AND CORINTHIAN ENCROACHMENT

In this paper I wish to question the views of the early relations between Corinth and Megara which were expressed in *Perachora* I (1940) and reinforced in *JHS* 1948, 59 ff. It was there maintained that the Heraeum was founded by Corinth on Corinthian soil *c.* 850 B.C., and this was put in the following general setting (*JHS* LXVIII 64). 'The foundation of the Heraion at Perachora will have been part of the same movement of Argive expansion which dorised Megara and lopped off her southern territories.' On this hypothesis the Dorian occupation of the Megarid occurred not before the Ionian migration, as all the literary tradition states, but after the Ionian migration; for on archaeological grounds alone the Ionian migration must have commenced during the tenth century at the latest. When Dunbabin wrote in *JHS*, the results of excavation at Smyrna were not known; these results, *inter alia*, prompt this paper.

I begin with a study of the literary evidence in Section I and pass to the archaeological evidence in Section II. I should say, at the outset, that it is only the excellence of the report of the Perachora excavation and of Mr. Dunbabin's work on early Corinth and the Western Greeks which makes a reconsideration of this problem possible.[1]

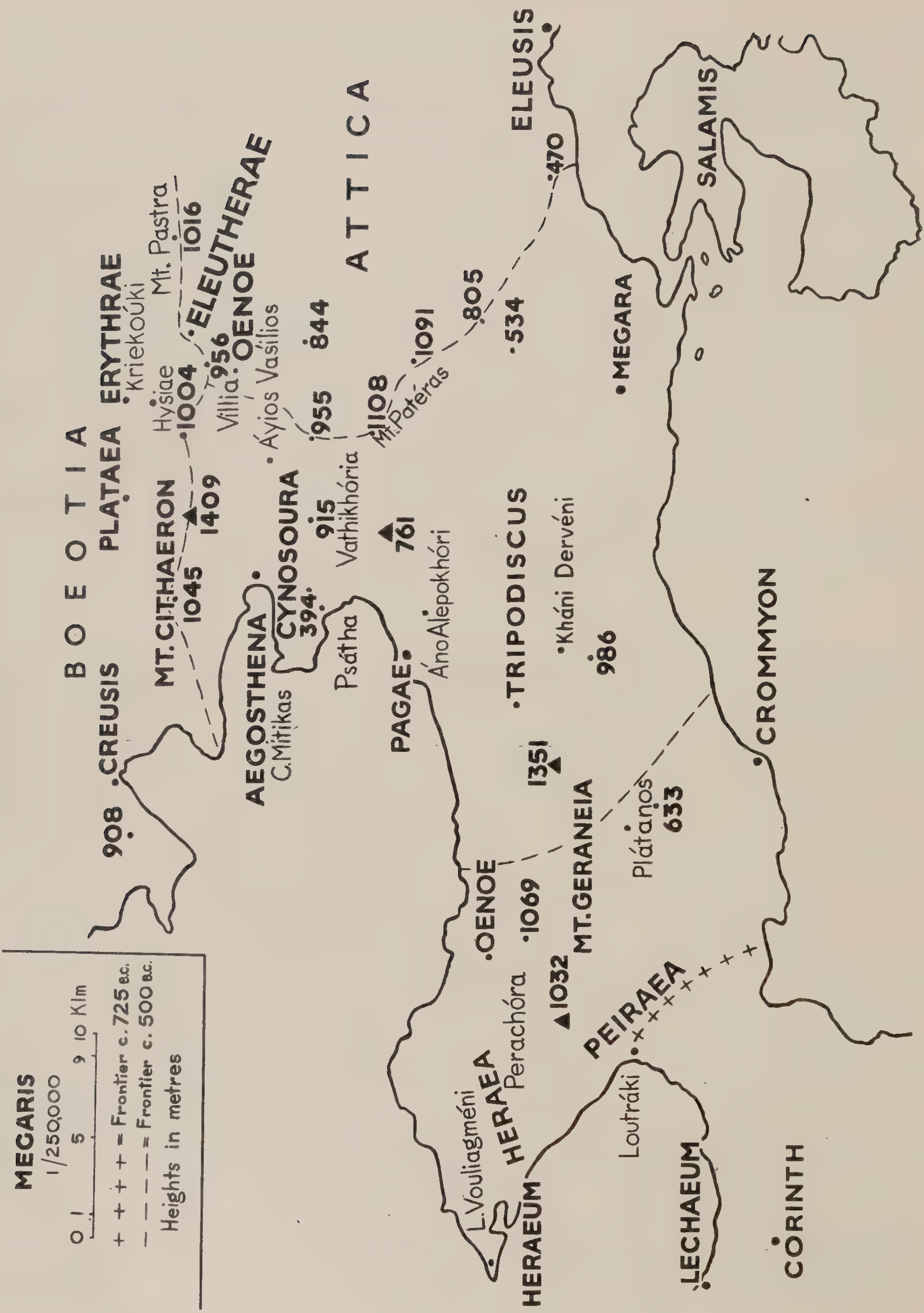
I

The literary evidence concerns three main periods. First, the pre-Dorian period when the area later named Megaris was occupied by Ionians. Second, the First Dorian period when the area was conquered and settled by Dorians. Third, the latter part of the Bacchiad régime at Corinth in the second half of the eighth century B.C. The source for the tradition concerning the pre-Dorian period was probably an Athenian one, which also covered the Ionian migration, itself impelled by the contraction of Attic territory when the Dorians seized the Megarid. The source for the next period is probably the *Megarian Constitution* of Aristotle, from which Plutarch, *Greek Questions* 17, 18, and 59 are thought to have been drawn.[2] The source for the third period is more problematical. It is a remarkable fact that we have a good deal of information about Corinth and Megara in the late eighth century. The foundation accounts of Corcyra, Syracuse, and Megara Hyblaea contain considerable detail about the Bacchiadae and the expeditions of Archias and Lamis, which meet at one point at Zephyrium in South Italy. Thucydides has a firm chronology for colonisation in the west with special detail for Megara Hyblaea and its foundation, which he dates to 728 B.C. On the mainland he dates the activity of the Corinthian shipwright Ameinocles to the end of the eighth century B.C. Aristotle, in the *Politics*, describes reforms by Pheidon and Philolaus of Corinth, the latter a Bacchiad, victor at Olympia in 728 B.C. To this body of tradition about the Bacchiadae belong the references to Corinthian encroachment on the Megarid, which arise from the explaining of the proverbs ὁ Διὸς Κόρινθος and Μεγαρέων δάκρυα. The former of these proverbs, and probably the story from which it derived its meaning, was known to Pindar. That the original source for such information was

---

[1] I express my gratitude to the following who have helped me by their comments: Mr. T. J. Dunbabin, Professors S. S. Weinberg, H. A. Thompson, A. J. B. Wace, and many friends at the Institute for Advanced Study, Princeton, where this paper was written.

[2] W. R. Halliday, *Plutarch's Greek Questions* (1928), 92, agreeing with Giessen in *Philologus* LX 461 f.


MEGARIS
1/250,000
0 1 5 9 10 Klm
+ + + + = Frontier c. 725 B.C.
— — — = Frontier c. 500 B.C.
Heights in metres
BOEOTIA
ATTICA
CREUSIS
908
PLATAEA
ERYTHRAE
Kriekoúki
Hysiae
Mt. Pastra
1016
ELEUTHERAE
OENOE
956
Villia
1004
MT. CITHAERON
1409
1045
Áyios Vasílios
844
955
AEGOSTHENA
C. Mitíkas
CYNOSOURA
394
915
Psátha
Vathikhória
1108
Mt. Patéras
1091
805
761
PAGAE
Áno Alepokhóri
ELEUSIS
470
534
SALAMIS
MEGARA
TRIPODISCUS
Kháni Dervéni
986
1351
CROMMYON
MT. GERANEIA
Plátanos
633
OENOE
1069
1032
Perachóra
PEIRAEA
HERAEA
L. Vouliagméni
HERAEUM
Loutráki
LECHAEUM
CORINTH

Eumelus the epic poet, whose date falls in the second half of the eighth century and whose lifetime overlapped that of Archias, the founder of Syracuse, seems to be highly probable; but, if it is not, we must still suppose the authority to be an early one, anterior to Pindar and Thucydides. The later transmission of the information, with which we are concerned for the Corinthian encroachment on the Megarid, seems to have been through the medium of Aristotle's *Megarian Constitution.*[3]

Another indication that a strong tradition came down from the late eighth century is to be found in the epigram celebrating the deeds of Orsippus, the Olympic victor of 720 B.C., in whose honour a statue was set up at Megara on the instructions of Delphi and an epigram was written perhaps by Simonides (556–467 B.C.). The grounds, on which Orsippus was honoured, have every claim to be considered historical.

'Τίς ὁ δορύξενος; '

Τὸ παλαιὸν ἡ Μεγαρὶς ᾠκεῖτο κατὰ κώμας, εἰς πέντε μέρη νενεμημένων τῶν πολιτῶν· ἐκαλοῦντο δὲ Ἡραεῖς καὶ Πιραεῖς καὶ Μεγαρεῖς καὶ Κυνοσουρεῖς καὶ Τριποδισκίοι . . . . .

'Who is the spear-friend? '

' (What is now) the Megarid was occupied in ancient times by village-communities, the (present) citizens (of Megara) being (then) distributed in five divisions, and they were called Heraeis, Piraeis, Megareis, Cynosoureis and Tripodiscii . . . ' Plutarch, *Greek Question* 17.

The passage goes on to describe a war between the village communities, which was promoted by Corinthian intrigue, and to explain that anyone who did not abide by the unwritten laws of ' spear-friendship ' was regarded as perfidious in the eyes not only of his enemies but also of his own citizens (παρὰ τοῖς πολίταις), that is the members of his own village community. The *kome* was at this stage a separate and autocephalous state; a ' Megareus ' then was a citizen of the *kome* Megara, and the territory ' Megaris ' enclosed Megara but not Cynosoura, Tripodiscus, etc. At a later date the *komai* coalesced politically, but not thereby physically, into the *polis* Megara; thereafter a ' Megareus ' was a citizen of the *polis* Megara, and the territory ' Megaris ' enclosed not only Megara but also Cynosoura, Tripodiscus, etc. When the new state came into being its citizens were distributed in five divisions. These divisions corresponded with and sprang from the territories of the five hitherto independent *komai*, and they did not become submerged thereafter. For in a third-century inscription [4] an Athenian is described with his tribal ethnic and a Megarian with the corresponding ethnic Μεγαρεὺς Διονύσιος Πασίωνος ἑκατοστὺς Κυνοσουρίς. The original *kome* Cynosoura evidently became a ward of the Megarian state, from which magistrates were elected and troops raised: for the term ἑκατοστύς, found also in the Megarian colonies Byzantium and Heraclea Pontica, probably had originally a military connotation like the *centuria*; and the Megarian military and civil magistrates—the *strategoi* and the *demiourgoi*—formed colleges of five, which no doubt sprang from the five-fold division of the state.[5] *Komai* themselves preserved some powers of local government, as did the demes of Attica; for in another inscription, dating to about 300 B.C., an honorary decree was passed in favour of benefactors ὑπὲρ τᾶς πόλιος ἢ ὑπὲρ τᾶγ κωμᾶν.[6]

---

[3] A large number of proverbs evidently figured in Aristotle's *Constitutions cf.*, for example, *frs.* 552, 553, 554, 558, 565, etc.

[4] *IG* IV^{2} 42. 18.

[5] This is a disputed point which is discussed by K. Hanell, *Megarische Studien* (1934), 138 f. For a time just after 306 B.C., when Demetrius placed a garrison in Aegosthena, there were six strategoi, and Aegosthena probably became a *kome* in the political sense of being a subdivision of the Megarian state. Hanell regards the years after 306 B.C. as exceptional, in that Demetrius gave Aegosthena political status as well as a garrison, and thereby raised the divisions to a total of six. Hanell's view is followed in my text.

[6] *IG* VII (1) 17, wherein κώμα is a technical term for a privileged community and not just any village.

This process of evolution is closely paralleled at Sparta. There, too, an early tradition preserved the memory of independent communities, which even fought with one another (Paus. III 16, 9–10: οἱ Λιμνᾶται Σπαρτιατῶν καὶ Κυνοσουρεῖς καὶ ⟨οἱ⟩ ἐκ Μεσόας τε καὶ Πιτάνης κτλ.). When the Spartan *polis* was formed, the five constituent *komai*, Limnaea, Cynosoura, Mesoa, Pitana, and Amyclae, retained their physical separation (Thuc. I 10: πόλεως . . . . κατὰ κώμας τῷ παλαιῷ τῆς Ἑλλάδος τρόπῳ οἰκισθείσης), and became political wards of Sparta, on which originally were based the five λόχοι, the five tribes, and probably the five ephors.[7] In these two Dorian states we see the implementation of Aristotle's very illuminating dictum that the city-state formed out of village-communities (ἡ δὲ ἐκ πλειόνων κωμῶν κοινωνία τέλειος πόλις in *Politics* 1252b28).[8]

It was held by Halliday that the situation described in Plutarch's *Greek Question* 17 should be dated to pre-Dorian times;[9] and his view was followed in *Perachora* I 20, not so much on literary grounds as on the inference from excavation that the Heraeum was from its foundation Corinthian. The same view underlies the quotation from *JHS* at the opening of this paper. But Halliday's view seems to me untenable for the following reasons. First, in the ancient tradition the area later known as the Megarid was occupied in pre-Dorian times by Ionians and belonged to Attica; it was not a separate area: τὸ παλαιὸν μὲν οὖν Ἴωνες εἶχον τὴν χώραν ταύτην οἵπερ καὶ τὴν Ἀττικήν, οὔπω τῶν Μεγάρων ἐκτισμένων.[10] Second, Megara was notoriously founded by the invading Dorians: τήν τε πόλιν ἔκτισαν τὰ Μέγαρα καὶ τοὺς ἀνθρώπους Δωριέας ἀντὶ Ἰώνων ἐποίησαν.[11] In pre-Dorian times Μέγαρα, Μεγαρίς, and Μεγαρεῖς did not exist. Third, the colonies of Dorian Megara were remarkable for their worship of Hera; and Megara Hyblaea, Calchedon, and Byzantium worshipped Hera Acraea.[12] Such behaviour in the colonies is surely incompatible with the view that the shrine of Hera Acraea in the territory of Perachora never belonged to Dorian Megara but always belonged to her bitter enemy Dorian Corinth. I therefore conclude that the situation described in Plutarch's *Greek Question* 17 concerns Dorian Megara.

The invasion, the foundation of Megara and the settlement of the new territory by the Dorians occurred after the death of Codrus and before the departure of his younger son Neleus as leader of the Ionian migration. On genealogical and on archaeological reckoning this event falls in the dark age around 1000 B.C. The Dorian settlers settled κατὰ κώμας, because the areas from which they came were also occupied κατὰ κώμας τῷ παλαιῷ τῆς Ἑλλάδος τρόπῳ. Most of the settlers were from Corinthia, but others came from different parts of the Peloponnese.[13] The leadership of the expedition had been vested in a Heraclid probably from Argos; the worship of Apollo Archegetes at the new foundation, Megara, like that of Apollo Oikistes at Aegina, indicated that Apollo Pythaeus of Argos was the divine founder.[14] At Tripodiscus the Dorian legend honoured the Argive Coroebus as founder.[15] In the south-west Hera, the Argive goddess, gave her name to the promontory on which later the temple of Hera Acraea was built. The connections in cult were particularly strong with Argos.

---

[7] See *JHS* LXX 59 f.

[8] The origin of the Corinthian state is similar, although the attribution to Aletes is anachronistic, in Suidas *s.v.* 'πάντα ὀκτώ': Ἀλήτης κατὰ χρησμὸν τοὺς Κορινθίους συνοικίζων ὀκτὼ φυλὰς ἐποίησε τοὺς πολίτας καὶ ὀκτὼ μέρη τὴν πόλιν.

[9] Halliday, *op. cit.* 95 f.

[10] Strabo 392.

[11] Strabo 393, 333, 653. Hdt. V 76 Δωριέες . . . . . Μέγαρα κατοίκισαν. Scymnus 502 f., Μέγαρα, Δωρικὴ πόλις· σύμπαντες αὐτὴν ἐπόλισαν γὰρ Δωριεῖς, πλεῖστα Κορίνθιοι δὲ καὶ Μεσσήνιοι. When Megara competed for entry into the Homeric Catalogue she did not name Megara but Polichne, Aegeiroussa, Nisaea, and Tripodes (Strabo 394).

[12] Hanell, *op. cit.* 207 f., lists seven such colonies, together with many personal names derived from Hera; at Megara Hyblaea a temple of Hera on the coast in D.S. XX 32. 4; at Byzantium Dion. Byz. fr. 9 in *GGM* II 23; and at Calchedon, St. Byz. *s.v.* '"Ηραία'.

[13] Paus. I 39. 4 Κορινθίων καὶ τῶν ἄλλων συμμάχων τοῖς ἐθέλουσιν ἔδωκαν οἰκῆσαι.

[14] Hanell, *op. cit.* 88 f.

[15] Paus. I 43. 8.

As our *Greek Question* states, the Corinthians ἀεὶ . . . ἐπεβούλευον ὑφ’ αὑτοῖς ποιήσασθαι τὴν Μεγαρικήν. The temporary success of the Corinthians in winning at least part of the Megarid or a partial suzerainty over the Megarian state is recorded in a number of passages. These clearly derive from a common source, some versions being longer or shorter than others but agreeing in their area of overlap. Thus the Scholiast to Plato, *Euthydemus* 292 E, records that the Corinthians maltreated the Megarians as their colonists (ἄποικοι), and the Megarians at first submitted but later revolted; whereupon the Corinthians sent envoys to accuse the Megarians. These envoys presented themselves before the assembly, and in their speech said that ὁ Διὸς Κόρινθος would be grieved if the Megarians went unpunished. The Megarians then stoned the envoys, who received help, but after a battle withdrew pursued by their enemies, who bade one another smite τὸν Διὸς Κόρινθον. The same story is given by the Scholiast to Pindar, *Nemean* VII 155, who adds the detail that when a Bacchiad died the Megarians were compelled to send youths and maids to join in the mourning. The same story with the same addition is given in Suidas, *s.v.* ‘ Διὸς Κόρινθος ’, by the Scholiast to Aristophanes, *Ranae* 442, by Hesychius, *s.v.* ‘ Διὸς Κόρινθος ’ and by Zenobius V 8 explaining ‘ Μεγαρέων δάκρυα ’. The common source for these versions is a single account which probably was in Aristotle’s *Megarian Constitution* and not in Ephorus Book I. It seems to concern a time when the Megarian state had already formed, when the idea of ἄποικοι was in the air, and when the Bacchiadae were in power. A date in the period 750–700 B.C. meets these requirements and coincides with the time to which our other early information about Corinth and Megara refers.[16] Sparta supplies an important analogy from the period *c.* 730–710 B.C. The Messenians after the First Messenian War were compelled to send men and women in mourning garb to attend the funerals of Spartan kings and statesmen.[17] The Corinthians, like the Spartans, meant to incorporate the conquered territory in perpetuity.[18]

In 720 B.C. Orsippus won the *stadion* race at Olympia, being the first citizen of Megara to do so. Pausanias saw the statues of Orsippus and Coroebus, the founder of Tripodiscus, set over their graves at Megara and noted they were the earliest statues in stone. The epigrams written on the bases of the two statues have been preserved,[19] and the epigram on Orsippus runs:

> ’Ορρίππω Μεγαρῆς με δαΐφρονι τῆδε ἀρίδηλον
> μνᾶμα θέσαν, φάμα Δελφίδι πειθόμενοι·
> ὃς δὴ μακίστους μὲν ὅρους ἀπελύσατο πάτρα
> πολλὰν δυσμενέων γᾶν ἀποτεμνομένων,
> πρᾶτος δ’ ‘Ελλάνων ἐν ’Ολυμπία ἐστεφανώθη
> γυμνός, ȝωννυμένων τῶν πρὶν ἐνὶ σταδίω.

The great honour paid to Orsippus, putting him on a level with Coroebus, suggests that his victory was not in a trivial frontier dispute but in an important war. The phrase ‘ when the enemy were appropriating a great area of land ’ means not a single and far-ranging campaign but a deliberate seizure of a wide territory. Who were the enemy? Megara had two immediate neighbours, Athens and Corinth. There is no tradition of an Athenian appropriation of Megarian territory *c.* 720 B.C. or later; but there is the tradition about Corinth, as summarised in the last paragraph, and also the certainty that Megara lost Crommyon,[20] Peiraeum, Heraeum, and Oenoe[21] to Corinth eventually. Moreover, *c.* 720 B.C. Corinth was a powerful and expanding state, a leader in naval and commercial enterprise, whereas Athens was relatively unimportant in power politics.

---

[16] The spoils won by Megara with the aid of Argos from Corinth, recorded in Paus. VI 19. 13, are undatable.

[17] Tyrtaeus 5 in Paus. IV 14. 4 f.

[18] Hdt. VI 58 shows the compulsion put upon perioikoi and helots to attend the funeral of a king.

[19] Orsippus in Hicks and Hill, *GHI*, no. 1. and Schol. Thuc. I 6; Coroebus in *Anth. Pal.* VII 154. They have in common the words φάμα Δελφίς, and the epigram on Orsippus is sometimes said to be by Simonides.

[20] Strabo 380.

On geographical grounds, too, there are very strong reasons for supposing that Corinth appropriated the southern part of the Megarid in the latter part of the eighth century. The route over the isthmus had suddenly become of paramount importance to Corinth for her rapidly growing trade between the Gulfs; from 725 B.C. onwards, and particularly from 700 B.C. the isthmus was the source of her prosperity. It was threatened by any Megarian post south of Mt. Gerania such as Crommyon. The harbour of the Heraeum became of the greatest importance to Corinth at the same period. It provided shelter against northerly and westerly winds, to which Lechaeum was exposed, and it gave a look-out down the Gulf; its hinterland offered shipbuilding timber and pasture. In Megarian hands the harbour at the Heraeum was a base for piracy, which threatened the Corinthian position as the emporium for seaborne commerce from the recently opened West. It was only with the phenomenal expansion of Corinthian power and commerce that the appropriation of the southern Megarid and especially of the Heraeum (FIG. p. 94) became imperative for Corinth.[22]

That Corinth had gained the Heraeum for good not later than 700 B.C. is beyond dispute on the evidence of the Perachora excavation. But another new fact emerged which sheds some light upon the importance and significance of the Hera Acraea cult. At Argos, Phlius, Corinth, and Corcyra the cult of Hera Acraea was on a height, and she was the goddess of the hill. At the Heraeum the cult of Hera Acraea was on a promontory;[23] so it was also at Megara Hyblaea, Calchedon, and Byzantium.[24] The excavations at Perachora showed that the temple dedicated to Hera Acraea lasted from *c.* 850 B.C. until ' about the third quarter of the eighth century B.C. when . . . it may well have collapsed through its walls being washed away '.[25] The worship hitherto given to Hera Acraea was now paid to Hera Limenia, the goddess of the busy harbour, to whom a temple was built about this time. The surprising thing is not the temple's collapse but the failure to restore the cult of Hera Acraea until the sixth century B.C., when a new temple was built. Why was the cult of Hera Acraea perpetuated at Megara Hyblaea (founded 728 B.C.), at Calchedon (676 B.C.), at Byzantium (660 B.C.), and perhaps near Astacus (712 B.C.) but discontinued and superseded at the home of the cult? The answer surely is that the Megarians (particularly those displaced from Perachora) spread their cult overseas and that the Corinthians introduced the cult of Hera Limenia. And one reason for the large scale of Megarian colonial enterprise was loss of territory at home and a surplus of manpower.

Thus the literary evidence, supported by considerations of geography and of cult, suggests very strongly that south Megaris, and in particular the shrine of Hera Acraea, were Dorian and Megarian until some time in the period 750–700 B.C., when it became the scene in turn of Corinthian appropriation, Megarian liberation, and Corinthian possession for good.

II

The first deduction from the archaeological evidence to be considered is a minor one. As the temple of Hera Acraea proved to have been founded *c.* 850 B.C., there was a presumption that the cult originated then and that the name ‘ Heraeis ’ came into use after 850 B.C. Since the authors of *Perachora* believed (as I do) that the ‘ Heraeis ’ and the other divisions described by Plutarch dated from before 850 B.C., they postulated that Plutarch ‘ may be using the name which belongs to his own period ’.[26] This seems to be unnecessarily complicated. Could there have been Ἡραεῖς before there was a temple? The answer is surely Yes. The beginning of worship is not found in the construction of a temple. Although the earliest temples yet discovered in Greece date from 850–750 B.C., no one doubts that worship of Apollo Pythaeus, Carneius, Archegetes, Oikistes, etc., and equally of Hera, was practised before 850 B.C. The probability is that the promontory was named Ἡραία (ἄκρα) by the invading Dorians and an oracular cult of Hera was practised there before (and probably after) the building of the temple.[27] In other words, the Ἡραεῖς were named after the district Ἡραία and not after τὸ Ἥραιον (τέμενος),[28] which was a sanctuary and not a settlement.

---

[21] Xenophon *HG* IV 5. 1 f.

[22] See *Perachora* I 23 f.

[23] Strabo 380: ἐν τῷ μεταξὺ τοῦ Λεχαίου καὶ Παγῶν τὸ τῆς Ἀκραίας μαντεῖον Ἥρας ὑπῆρχε τὸ παλαιόν.

[24] Megara Hyblaea, D.S. XX 32. 4, ἐξεκολύμβησαν πρός τινα ναὸν Ἥρας. Calchedon, St. Byz. *s.v.* ' 'Ἡραία', ἄκρα . . . . καταντικρὺ Καλχηδόνος. Byzantium, *GGM* II 23 = Dion. Byz. fr. 9, temple destroyed by Xerxes but annual sacrifice by Megarians there. In the cases of Ὕβλα Ἡραία (St. Byz. *s.v.* Ὕβλα) and Ἡραία near Astacus (St. Byz. *s.v.*) we do not know whether there was a cult of Ἥρα Ἀκραία, but both were probably beside water.

[25] *Perachora* I 30.

So, too, the name Πιραεῖς probably derives from Περαία (γῆ), which may have received its descriptive name in the Bronze Age from any Greek-speaking people of the adjacent Peloponnese.[29] In Xenophon (*HG* IV 5. 1) the names Ἥραιον and Πείραιον presumably stand for Ἥραιον (τέμενος), where the refugees and flocks took asylum, and Πειραῖον (τεῖχος), in which the Corinthians resisted Agesilaus. Both are single points named after the general terms Ἡραία and Περαία.

The pottery from the Heraeum of *c.* 850–725 B.C., so far as it has been described in *Perachora* I, was all ‘ Corinthian ’ or ‘ Argive ’. No object, whether of pottery or another substance, was described as ‘ Megarian ’. The conclusion was then drawn that the Heraeum was in Corinthian possession from the earliest date of the archaeological evidence, that is from 850 B.C. Now the description was made in terms of known styles of Geometric pottery, that is ‘ Corinthian ’ and ‘ Argive ’, but not ‘ Megarian ’, because Megara itself is ‘ almost an unknown quantity archaeologically ’, as Dunbabin points out. In fact, Megarian Geometric is completely unknown; for the only Geometric pots found in the Megarid (the Heraeum excepted) were made in Corinth and imported to Megara.[30] When we turn to the conclusion of the excavators we are faced by three questions. Can Megarian occupation in 850–725 B.C. be excluded on the grounds that no ‘ Megarian ’ pottery was found, ‘ Megarian ’ being an unknown factor? Is it conceivable that, whoever had political control, the Megarians of the Megarid made no dedications to Hera Acraea in the period 850–725 B.C. and yet perpetuated her cult in the colonies from 730 B.C. onwards? Is it probable that, whereas Megarians did not dedicate to Hera Acraea, the Argives continually did so during the Geometric period? Until a site in the Megarid other than the Heraeum, which is in dispute, has been excavated, it seems preferable to adopt a hypothesis which suits the literary evidence: namely, that the ‘ Argive ’ style of pottery at the Heraeum is a local style which has affinity with the Geometric style of Argolis.[31] As Argos and Megara had close connections in cult and tradition, the hypothesis is not unreasonable in its own right. And we may draw a possible parallel from the history of the bronze statuette of Heracles, dating to the early fifth century B.C. It was tentatively identified as Argive, or less closely as Argive–Corinthian, but study of the letter-forms has shown it to be Megarian.[32]

---

[26] *Perachora* I 21.

[27] No trace of an oracle has been found at the temple site (*Perachora* I 19), but its presence may account for the richness of the votive deposits. Dunbabin, *BSA* XLVI (1951), 61 f., suggests that it was associated with an artificial pool built *c.* 750. A natural feature may be more probable. It was perhaps associated with a sea-washed cave such as Stephanus Byzantinus describes *s.v.* Ἡραία near Calchedon.

[28] The ethnic of Ἡραία is given by Stephanus Byzantinus as Ἡραιεῖς or Ἡραεῖς, and the ethnic of Ἥραιον as Ἥραιοι. In the districts with which we are concerned there may have been a Ἡραία κώμη and a Περαία κώμη, but I am more inclined to suppose that the κῶμαι had different names and that the Ἡραεῖς and Πιραεῖς were named from the districts and not the κῶμαι. The district ‘ Peraia ’ probably included the modern Loutráki.

[29] I see no force in the argument in *Perachora* I, 1 and 21, that, if Peraea ‘ can mean only the land opposite Corinth,’ the name ‘ can have been given only after the district became Corinthian.’ In this sense Corinth is a geographical term; at any period when Greek was spoken in the Peloponnese this name could have been coined and not only in the Dorian Corinth of 850 B.C.

[30] *JHS* LXVIII 65; *PAE* 1934, 55, fig. 15.

If this hypothesis is made—and until an indisputably Megarian site is excavated nothing else can be certain—it not only fits the literary evidence but also solves some problems for the archaeologist. The summary of the votive deposit at the Heraeum *c.* 850–750 B.C. reads: ' Most of the geometric pottery is, as one would expect, certainly local, but there is clear evidence of a strong connection with Argos. . . . Argive pottery was scarcely ever exported outside the Peloponnese and the amount of early Argive material is consequently a most remarkable fact '.[33] At Corinth, for instance, midway between Argos and Perachora, the period 900–750 B.C. has yielded one doubtful ' Argive ' oenochoe and one doubtful ' Argive ' skyphos.[34] With reference to the votive deposits of the Hera Acraea and Hera Limenia temples ' this impressive collection of early Argive material from the two temples must indicate that the cult was actually founded from Argos '.[35] In particular, the famous clay models of buildings, which came from the early temple of Hera Acraea founded *c.* 850 B.C., ' are best regarded as dedications made by builders ' and perhaps ' were dedicated by the builders of the temple. Whether this is so or not, there is good reason to believe that the founders of the cult at Perachora were Argives '.[36] This connection was not limited to the foundation of the temple *c.* 850 B.C., but continued through its history to *c.* 725 B.C.[37] Apart from the ' Argive ' pottery, there was ' no other foreign fabric of objects in clay ' at the site.

If we adopt the hypothesis which I have suggested, it will be clear that the Geometric period at the Heraeum was similar to that in adjacent areas: a period of provincial isolation, in which a Megarian temple was built by Megarian builders and received the works of Megarian potters, whose contact with the Argolid was due to a common tradition and a cult association. This site with its oracle was visited a great deal by the Corinthians, from whose land the majority of the settlers had gone to the Megarid; their fine pottery was doubtless also exported across the Gulf to any residents near the shrine.

When the temple of Hera Limenia was built, the earliest deposit (east and north-east of the temple wall) was ' for the most part purely Protocorinthian '.[38] On the present system of dating [39] the temple was founded not earlier than about 725–700 B.C. ' Several Argive sherds and small vases, part of a huge geometric crater, two seals, many terracottas ' [40] (as well as a plaque in Corinthian clay from the same matrix as a plaque at the Argive Heraeum, Crete being possibly the common source) came from the temenos of the temple, but now there was an influx of Attic, Cycladic, and Boeotian pottery, and thereafter of pottery from most of the Greek world. A town also made its appearance on this waterless site in the seventh century, but the possibility of earlier settlement in the Geometric period was not excluded by the excavators. The general contrast between the two periods—the Geometric, when Megarians held the site and worshipped Hera Acraea, and the Protocorinthian, when Corinthians appropriated the site with an interval of liberation by Orsippus—is as sharp as could be wished. The peninsula, as part of the Megarian territory, had less value than Pagae as a port; but for Corinth and for the ships carrying trade to and from Corinth its harbour was an international centre. Here, too, the ' Argive ' material may be Megarian ware of ' Argive ' style; in any case the site was swamped by Corinthian goods of all sorts, and not only by Corinthian pottery at this time.

---

[31] The clay of the Geometric pottery at the Heraeum does not generally indicate the place of manufacture; we do not know what clay was used in the Megarid by Megarians, and in many cases we cannot distinguish the clay of ' Corinthian-style ' from the clay of ' Argive-style ' pottery. See *Perachora* I 53 and 65–6, for the clays of the heavy fabric at the Heraeum, and 41–2, for the clay of the temple-models; on p. 32, where it is said ' most of the Geometric pottery was . . . certainly local,' it is not perhaps clear whether the statement is based on style or on a clay peculiar to the immediate locality of the Heraeum.

[32] See Jeffery, *JHS* LXIX (1949), 31 f.

[33] *Perachora* I 32.

[34] Weinberg, *Corinth* VII 1 (1943), nos. 24. and 85.; on p. 8 he notes that the so-called ' monochrome Argive ' vases, which extend into the geometric period, are in part of Corinthian manufacture. Caskey, *Hesperia* XXI (1952), 173, records that at the Argive Heraeum excavation in 1949 ' most ' pieces of Geometric pottery were local Argive; he lists only one non-Argive piece, ' possibly Laconian.'

[35] *Perachora* I 33.

[36] *JHS* LXVIII 63.

[37] *JHS* LXVIII 64. ' The temple models and clay cakes at Perachora are objects which cannot have come in the course of trade, but witness the continual vists to the sanctuary of individual Argives.' It is difficult to see why the Argives with their local and revered cult of Hera at hand should make the arduous pilgrimage to the shrine of Hera Acraea, an off-shoot of their own cult, in the difficult conditions of 850–750 B.C.

[38] *Perachora* I 118.

[39] *JHS* LXVIII 68. The pure deposits seem to give the soundest basis for dating, and the earliest layer provides the terminus *post quem* offerings were made. On the dating by Weinberg and Dunbabin this layer begins about 725 B.C.

[40] *Perachora* I 32.

In the colonisation of Sicily Megara entered the field as early as Chalcis and Corinth, although she took longer to plant a colony firmly [41]; Argos, on the other hand, planted no colonies in the West. Among the earliest Greek pottery in the West there was some ' Argive ' pottery which may reflect the precolonial activity of Megarians rather than of Argives.[42] The Megarian colony at Megara Hyblaea was only twelve miles distant from Syracuse, which overshadowed it in commercial and other matters. It soon became ' a shadow of the Fusco cemetery at Syracuse ' in its pottery,[43] but before it did so there is some evidence. ' Argive vases are not common in the west, except on sites near Syracuse, and have not a wide general distribution, so their presence at Syracuse is the more noteworthy. There is found a distinct class of vases of Argive style, many of which are thought to have been made at Syracuse; if this is so, the presence of Argives among the colonists is established; but the latest scholar to study them believes them all to be imports, in which case they may have been brought by Corinthians.' [44] If these were Megarian vases of ' Argive ' style, their presence within limited range of Megara Hyblaea is natural; Megarians and perhaps some Corinthians may have carried them, but the latter seem to have distributed their wares more widely.

In conclusion I summarise the development in the Megarid on the hypothesis that what has been called Geometric ' Argive ' pottery at Perachora is really local Megarian ware imitating trends at Argos. This hypothesis is put forward humbly in the absence of excavation except at the point in dispute. But it does not do violence to the literary evidence or, I hope, to the archaeological evidence.

(1) *c.* 1050–1000 B.C. Ionians displaced from the isthmus area, including Crommyon and Perachora, by Dorians.

(2) *c.* 1000–750 B.C. Dorian villages established, which towards 750 B.C. coalesce to form the Megarian *polis*.

(3) *c.* 850–725 B.C. Megarian temple to Hera Acraea.

(4) *c.* 750–725 B.C. Pre-colonial Megarian pottery found in small quantity in the West.

(5) *c.* 733 B.C. Lamis leads a colonial expedition to Sicily which settled at Megara Hyblaea *c.* 728 B.C. Megarian pottery found in this locality for a time.

---

[41] Vallet and Villard, *BCH* LXXVI (1952), 289 f., place the foundation of Megara Hyblaea earlier than the foundation of Syracuse, relying mainly on the evidence of Corinthian pottery found at both sites, which does not seem to me conclusive.

[42] Dunbabin, *The Western Greeks* (1948), 4 and 51.

[43] *Loc. cit.* 231.

[44] *Loc. cit.* 14. As Dunbabin says, ' the presence of Argives among the colonists of Syracuse remains a mere conjecture '. Strabo 270 means rather that Archias collected Dorians from the founders of Megara (Hyblaea), who were probably Megarians but had difficulty in getting a foothold in Sicily.

(6) *c.* 712 B.C. Foundation of Astacus in the Propontis.

(7) *c.* 725–700 B.C. (*a*) Appropriation of southern Megaris by Corinth and foundation of temple to Hera Limenia. (*b*) Liberation of southern Megaris by Orsippus. (*c*) Lasting occupation of southern Megaris by Corinth from 700 B.C.[45]

(8) *c.* 700–650 B.C. (*a*) Prosperity of the Heraeum harbour and growth of a town under Corinthian occupation. (*b*) Megara founds Calchedon and Byzantium. (*c*) Cult of Hera Acraea suspended under Corinthian occupation, but observed in Megara Hyblaea, Calchedon, Byzantium, and probably near Astacus by the Megarian colonists.

N. G. L. Hammond

---

[45] The Megarians probably did not despair of regaining their territory and kept the fivefold division of the state, perhaps re-naming or re-locating the Heraeis and the Piraeis. Such conservatism is not strange in a small, distinct community; compare the case of Jersey, which still recognises the King of England as the Duke of Normandy, and remember the tenacity with which Messenians, Aeginetans, and Plataeans maintained their citizenship without a city. But this could only happen if the original state was well established. Thus, if the areas Heraea and Peraea fell to Corinth *c.* 850 B.C., the Megarian state must have been formed before 850 B.C., which is far too early for the general trend of political development.

THE MAIN ROAD FROM BOEOTIA TO THE PELOPONNESE THROUGH THE NORTHERN MEGARID

(PLATES 4–5)

This article is based on some walks in the Northern Megarid. Although my study of the terrain was far from comprehensive, the remains of a road, of towers beside the road, and of ancient settlements seem to justify the conclusion that a main road, perhaps *the* main road in classical times, from Boeotia to the Peloponnese passed through the Northern Megarid. The area has been little visited by travellers. Recently the forest cover of one part of the area was burnt, and this enabled me to see more than my predecessors had seen.[1]

A. THE ROUTES FROM BOEOTIA TO THE ISTHMUS

The long range of Mt. Cithaeron and its continuation eastwards, Mt. Pástra, form the main line dividing Boeotia from Megaris and Attica.[2] The longest and the most difficult route over this barrier runs from Creusis to Aegosthena, keeping close to the coast of the Corinthian Gulf. The second and the next in difficulty departs from Plataea, ascends steeply to a col in the range and then drops less steeply on the Megarian side. Of the Boeotian part of this route G. B. Grundy wrote: ‘ its character forbids the supposition that it can ever have been used for wheeled vehicles ’. The third and the easiest route departs from Kriekoúki, near which lay the ancient Erythrae. Passing on one's left the large school on the south side of Kriekoúki, one enters a dry stream-bed and follows a gradually ascending road along its western side. The stream-bed is shallow, and the bed and sides are of limestone. A fork is soon reached where one stream-bed continues southwards and another stream-bed runs south-westwards. Following the road beside the latter stream-bed a gradual ascent is made to the summit of the pass. Here, too, a modern road, cut for motor traffic, but never completed, crosses the ridge of Mt. Cithaeron; this road, from Kriekoúki to Víllia, is visible higher up on the mountain-side while one ascends the stream-bed. Descending from the ridge down the side of a small valley one soon crosses a shoulder and the view southwards is opened up. Across the wide depression, which runs inland from Aegosthena, a conspicuous track is seen ascending the flank of Mt. Karídhi to a nick in the ridge, and above this nick a peak of Mt. Gerania, just showing in the distance on a clear day (PLATE 4 (*a*)). Here a Turkish cobbled road which runs westward is crossed, and the track from Plataea comes in on the right. Then there is a long and gradual descent to Áyios Vasílios. Although the traveller is unaware of it he is walking along the line of the watershed between the Corinthian and Saronic Gulfs, as he approaches Áyios Vasílios.

---

[1] As Visiting Fellow at the British School of Archaeology in Athens I was able to explore part of the Northern Megarid in late May and early June 1953. The Director of the School, Mr. J. M. Cook, accompanied me on one visit, and gave me the benefit of his help and advice. To him and to Professors H. A. Thompson and E. Vanderpool, who read an early draft of this paper, and to the Managers of the Leverhulme Research Fellowships, I wish to express my gratitude. The sherds, to which reference is made, are in the Museum of the British School. The best maps of the area are the 1945 reproduction of the Greek Staff map 1/100,000, sheets 19 (Khalkis) and 18 (Lebadeia), and, of the series showing the civil divisions of Greece, the sheet for the Eparkhia Megaridos, 1/100,000, produced by the Γενικὴ Στατιστικὴ Ὑπηρεσία τῆς Ἑλλάδος. Mr. C. W. J. Eliot kindly read and commented on the Appendix.

[2] Paus. I 38. 8 (after the incorporation of Eleutherae in Attica).

This road from Kriekoúki to Áyios Vasílios is well-graded throughout. The bed of the road is clearly marked, except in the latter part of the descent. At some points the rock-side has been cut, and support is given by a low retaining wall. The road is generally a little more than nine feet wide and never less. There are occasionally rut-marks in the rocky bed, and the gradient is suitable for a cart. There is no doubt that it was once in use for wheeled vehicles, but not in recent times; there is, for instance, no sign of Turkish cobbling on the surface. When Grundy walked from Kriekoúki, he did not branch south-westwards at the fork, but carried on southwards and then turned south-eastwards and eastwards to join the road in Attica between Gyphtókastro, usually identified with Eleutherae,[3] and Mázi. He entirely missed the route to Áyios Vasílios. But he made some interesting remarks.[4] ' Remains of the road are visible on the north side, entering a somewhat broad valley running into the hills. The ancient wheel-ruts worn in the rock show that it was used by wheeled vehicles '. He is writing here of the first section of the road, which is common to his route and to my route. He continues: ' I was, I confess, surprised to find in August 1899, that, in spite of the excellent road to Megara from Boeotia by way of Eleusis, the track on the old line of the Plataea–Megara road is still largely used.' The track in use leads not from Plataea but from Kriekoúki, and it has great advantages. I walked from Kriekoúki to Áyios Vasílios in two and a half hours.

In the long depression between the Cithaeron range and the Megarian mountains there are three notable points. Pórto Yermenó lies on the coast, close to the ancient Aegosthena. Áyios Vasílios is a church beside a well, called Krío Pigádhi; it is situated on the divide between the upland plateau-like part of the depression, where rise the headwaters of the Sarandapotamos which flows into the sea near Eleusis, and the steeply descending valley towards Aegosthena. Farther east, the town of Víllia with its vineyards is probably to be identified with Oenoe on the Attic frontier.[5]

Setting out from Portó Yermenó for Pagae one climbs very steeply for some 500 metres to the ridge of Mt. Mítikas and descends very steeply to Psátha, a hamlet of some dozen inhabited houses on the north shore of the small bay. Its name, ' The Reeds ', is due to the reeds growing in the marsh, which is separated by a narrow strip of silt and pebbly shore from the sea. A channel of fresh water, which is supplied by strong springs issuing a little above sea-level, borders the landward side of the marsh. This area is now partly drained by a pumphouse. Having passed inland of the marsh, one climbs very steeply, with sheer rock faces above one on the left, to reach the summit beside the ' Cliffs ', a high precipice of grey limestone facing the sea. After a very steep descent one reaches the shore and walks along it to Káto-Alepokhóri, beside which is the ancient Pagae. The walk from Aegosthena to Pagae took me three hours. It is hard going from sea-level to a mountain ridge twice; much of it is a one-man track, and it is now, and must always have been, impracticable for a wheeled vehicle of any kind.

Setting out from Áyios Vasílios for the Central Megarid, one ascends the side of Mt. Karídhi along a well-marked and well-graded road (PLATE 5 (*a*)). Just before the summit, where there is a steeper ascent, the road makes a zig-zag. Here there are a few yards of cobble-pavé of the Turkish type. From the summit the road bears a little to the left, crosses a low ridge, takes a wide zig-zag, which eases the descent, and then drops gradually, following the lower slopes of Mt. Patéras. As one descends, one opens up the view of the large basin, known as the Megálo Vathikhóri, and sees through a low cleft in the hills the wooded side of Mt. Gerania (PLATE 4(*b*)). The road proceeds on level and then gradually descending ground through the cleft. Leaving on one's right a smaller basin, known as the Mikró Vathikhóri, one crosses a low divide and descends into the Central Megarid. I walked in one hour from Áyios Vasílios to the summit of the pass on Mt. Karídhi, and in one hour from there to the low divide. I then turned off to reach Megara in a further two and three-quarter hours of easy going, making a total of seven and a quarter hours from Kriekoúki to Megara.

---

[3] See the Appendix at the end of the paper.

[4] G. B. Grundy, *The Great Persian War*, 446–7. He writes of a Plataea–Megara road as if it were separate from the Erythrae–Megara road, and in this he is followed to some extent by U. Kahrstedt in *AM* (1932), map facing p. 16. In fact, the routes join just on the south side of the ridge-top of the Cithaeron range. Grundy seems not to have walked south towards Megara. He simply remarks on ' the troublesome hill region of the Northern Megarid '. To speak of ' ancient ' wheel-ruts is perhaps misleading; for they are indistinguishable from mediaeval or modern wheel-ruts.

[5] See the Appendix.

The road from Áyios Vasílios to the Central Megarid is surprisingly good, the more so as one does not pass an inhabited house between Kriekoúki and Megara. It is well graded throughout. In particular, the large zig-zag on the south side of the summit was clearly made for carts and not for pack-animals. On the ascent from Áyios Vasílios there are two points where a level space beside the road is buttressed with a retaining wall, and four points where there is a level space and no buttressing is needed; these spaces probably served for pulling in to let another cart pass by. At a number of places, where the slope is rocky and steep, the rock on the upper side has been cut to admit the bed of the road, and the slope on the lower side of the road is offset by a retaining wall of unworked but well-placed blocks of stone. These features are most marked beside Tower A (see FIG. 1); there the width of the road between rock and retaining wall is nine feet. Just north of this point there are two retaining walls, one supporting the present road and another some six feet to the west, which had supported an earlier line of the road. The highest piece of retaining wall at this point measured some six feet in height. Rut-marks occur occasionally, and most noticeably on the descent from the divide into the Megarian plain. A shepherd, to whom I talked near this divide, said that ' years and years ago the waggons passed along this road ' to his village Kriekoúki. There is no doubt that he is correct. Nowadays no waggons pass; for the bed of the road is rocky and unsurfaced.

The Central Megarid is the comparatively low-lying belt of fertile country between the Megarian mountains, through which we have come, and the range of Mt. Gerania. About three quarters of it shelves down gently towards the Saronic Gulf, and one quarter falls rapidly towards the Corinthian Gulf. Walking from Megara to Pagae, I took three hours to reach the ridge which forms the watershed between the Gulfs; the steady ascent is made first through olives and cereals and then through vineyards and cereals. On the ridge there are pines and a few houses of Áno-Alepokhóri. The village itself is below the ridge, near the strong springs from which Pagae took its name. One descends from the ridge, passes through Áno-Alepokhóri, and reaches Káto-Alepokhóri in an hour. Megara to Pagae is four hours in all.

There are three routes from the Central Megarid to the Isthmus. The longest and the most difficult goes from Pagae along the coast to Schoenus and then via Perakhóra to Loutráki.[6] The route along the coast of the Saronic Gulf was in antiquity almost as difficult, until Hadrian widened the dangerous passage beside the Scironian cliffs.[7] The easiest route was ' through Gerania ' (διὰ Γερανείας, Thuc. I 108. 2). This route was re-developed during the last war, for the Germans built a road from Megara to Loutráki, using the line of the older road, which Gell, for instance, followed in 1819.[8] Starting from Megara, I walked for one hour through barley fields and olives, and then for two hours through vineyards to ascend from Megara to the upper part of the Kháni Dervéni—the name now of a district. The ascent is gradual, steady, and long in a hot sun; the motor-road follows the line of the earlier road, keeping on the north side and then on the west side of a dry and deepening gorge. From Kháni Dervéni one crosses to the ridge which forms the watershed between the two Gulfs, walks up a dry stream-bed (here departing from the motor-road), emerges on to the mountain-side and winds round to the saddle in 45 minutes. During this last part the older road departs from the motor-road. The bed of the old road is clearly marked; it is wider than nine feet, being on the average some twelve feet. The saddle, or top of the pass 'through Gerania', commands a magnificent view. Looking towards Boeotia one sees the massive ridge of Mt.

---

[6] Described in *Perachora* I 3 with fig. 2. It is there suggested that in 198 B.C. Philocles brought an army of 1,500 men along this coastal route; but the passage (Livy XXXII 23. 11) to which reference is made does not define the route, and in all probability Philocles used the normal route ' through Gerania '.

[7] Paus. I 44. 10; Strabo 391 (the road passed above the cliffs); W. Gell, *Itinerary of the Morea* (1817), 209; ' There is a road to Kinetta, passing the sites of Crommyon and Sidus in the way, along the coast toward Megara. Beyond Kinetta is the Kaki Scala, anciently the Scironian rocks, and Megara; but the way is neglected, and travellers usually go over Geranion, by the Derveni, to Megara.'

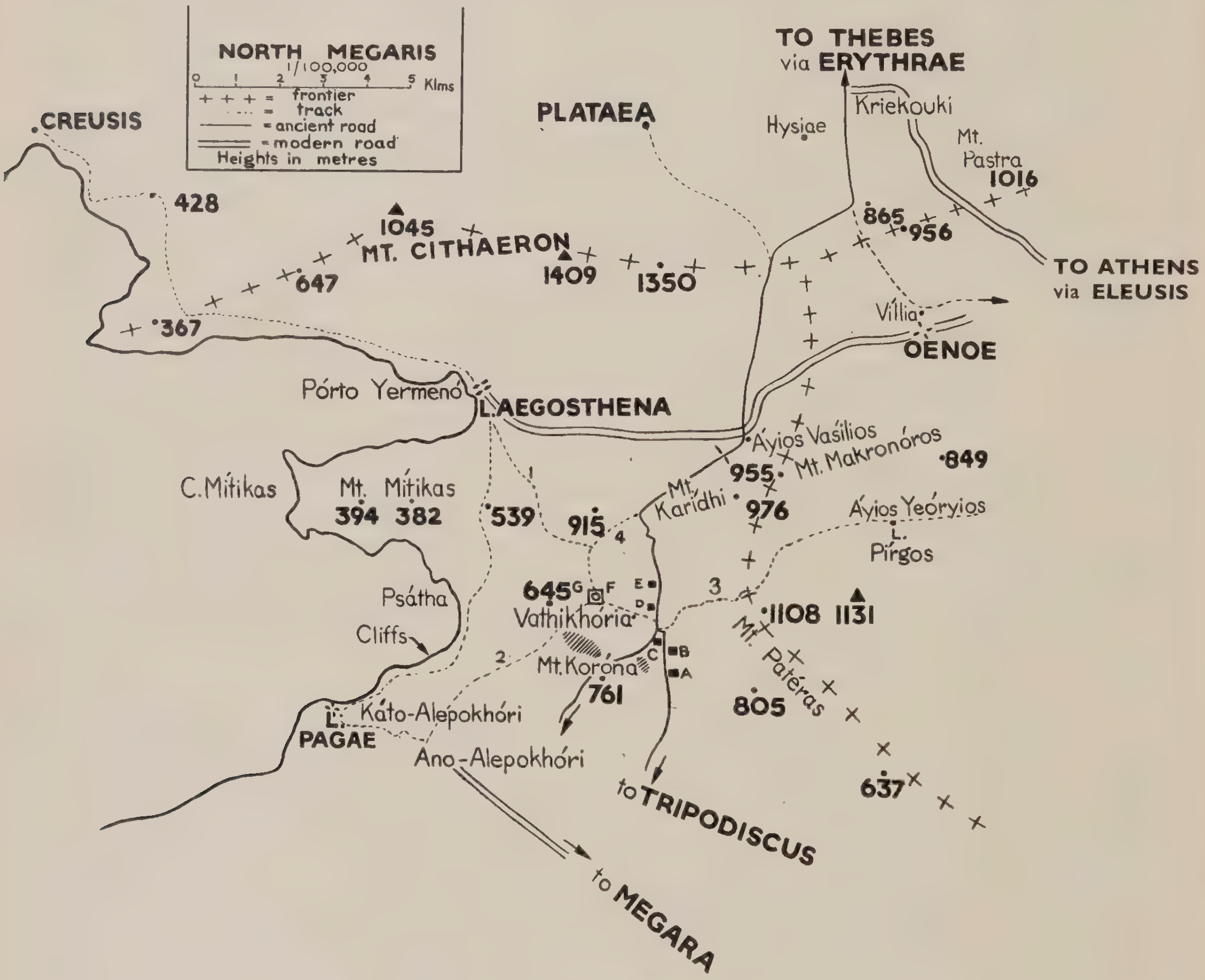

NORTH MEGARIS
1/100,000
0 1 2 3 4 5 Klms
+ + + = frontier
.... = track
= ancient road
= modern road
Heights in metres
CREUSIS
428
1045
MT. CITHAERON
647
1409
1350
367
PLATAEA
TO THEBES via ERYTHRAE
Hysiae
Kriekouki
Mt. Pastra
1016
865
956
TO ATHENS via ELEUSIS
Villia
OENOE
Pórto Yermenó
L. AEGOSTHENA
Áyios Vasílios
Mt. Makronóros
955
849
Mt. Karídhi
976
Áyios Yeóryios
L. Pírgos
C. Mítikas
Mt. Mítikas
394
382
539
915
1
4
645
G
F
E
D
Vathikhória
3
1108
1131
Mt. Patéras
Psátha Cliffs
2
Mt. Koróna
C
B
A
761
805
L. PAGAE
Káto-Alepokhóri
Áno-Alepokhóri
to TRIPODISCUS
637
to MEGARA

Fig. 1.—North Megaris.

---

[8] W. Gell, *Itinerary of Greece* (1819), 6–9. His times were Megara to Kháni Dervéni two hours thirty-three minutes, and Kháni Dervéni to Corinth six hours.

Cithaeron, the promontory of Mítikas, the houses of Psátha on the shore, and the clear line of a track (which we have not yet described) between the two peaks of Mt. Koróna. On the other side one sees the mountains of Epidauria and Argolis.

As one descends towards the Isthmus, the older road drops faster and more directly than the motor-road for some ten minutes. Thereafter they are one and the same road, following the wooded side of the mountain with a gradual descent to Plátanos, where there is a strong source of water and some fields. I reached this point in two and a quarter hours. The view PLATE 4 (*c*) was taken shortly before reaching Plátanos. I learnt later that villagers had opened some cist-graves, lined with slabs, at Plátanos; there was no doubt an ancient settlement at this strategic point. From it the routes diverge; the motor-road goes to Loutráki, the older road took Gell to the flat part of the Isthmus, a track goes north through a great cleft between the two masses of Mt. Gerania, and a cart-track descends south to Áyioi Theódhoroi, the site of the ancient Crommyon. I walked from Plátanos to Crommyon in two hours. It took Gell about the same time to ride from Plátanos to the flat part of the Isthmus. The whole route from Megara to the Isthmus is and was practicable for carts; it presents no difficulty, apart from the long pull uphill, especially from Megara, if that is one's point of departure. The walking time is five hours from Kháni Dervéni to the flat part of the Isthmus or to Crommyon, and three hours more from Megara.

One is often apt to think of tracks or roads, if one is walking, in their relation to an inhabited centre such as Megara or Pagae or Aegosthena. But, if one is concerned with a direct route from Corinthia to Boeotia, the significance of the road from Kriekoúki via Áyios Vasílios and Kháni Dervéni to the Isthmus becomes obvious. I have left a hiatus in my description, because I did not walk directly from the low divide (whence I turned off to Megara) to the ridge by Kháni Dervéni.[9] The walk between the two points would be easy, were there not vineyards in possession of the ground. During part of it one would follow the watershed ridge between the two Gulfs. It is a matter of one and a half hours of walking at a guess. Assuming this estimate, one can list the times from Boeotia to Corinthia thus: Kriekoúki–Áyios Vasílios two and a half hours, Áyios Vasílios–Kháni Dervéni three and a half hours, Kháni-Dervéni–Isthmus five hours, totalling eleven hours. The route is far shorter than any route which passes through Attica and Megara.[10] It is less arduous; for it takes advantage of the watershed ridges, whereas the coastal routes fall to sea-level. Throughout its length it was at some time practicable for wheeled vehicles.[11]

From the strategic point of view the bottleneck on this route is between the Vathikhória and Áyios Vasílios. For, whereas there are three ways through Mt. Gerania and its outliers and again three ways through the range of Mt. Cithaeron, there is only one reasonable route over Mt. Karídhi. The area, in which the Vathikhória lie, is roughly square in shape. It is bounded by the high points 539 and 976 on the north, 976 and 1108 and 805 on the east, 805 and 761 on the south, and 761, 645, and 539 on the west. All the rainfall in this area runs

[9] Gell, *op. cit.* 7 mentions a road turning off near Kháni Dervéni for Aegosthena.

[10] The modern road through Attica touches Mándra, the outskirts of Eleusis, and Megara. In Turkish times a carriageable route, which is more direct, was maintained from Megara to Koundoúra; taking this route, Gell's times from the Isthmus via Megara and Koundoúra to Kriekoúki amount to more than fourteen hours (Gell, *op. cit.* 11–12; 109).

[11] This route has been either overlooked, *e.g.* by W. P. Wallace, *Phoenix*, Suppl. Vol. I (1952), 82, who speaks of the 'roadless hills' (of the Northern Megarid), or regarded as of minor importance, *e.g.* by E. L. Highbarger, *History and Civilisation of Ancient Megara* 7, and by A.W. Gomme, *BSA* XVIII (1911/12), 193, who writes: 'a route from Megara to Plataea, somewhat to the east [this should be west] of the Eleutherae pass; it is mentioned by Pausanias and Xenophon, but was very little known or used'. More attention is given to the route in *RE* XV 170–1, where it figures as an 'Abzweigung' but 'ebenfalls wichtige Strassenstück', and by Curtius and Kaupert, *Karten von Attika* 39, who describe it as a 'Hauptweg aus der Megaris'. In comparing this road with the ordinary mule-track I was helped by some three years of walking in North and Central Greece.

into two deep pockets, the Megálo Vathikhóri and the Mikró Vathikhóri. The northern half of the former consists of undulating low ground, and the southern half is a flat, roughly circular bed of silt. This flat bed was evidently at one time a lake. Nowadays, after heavy rains in the winter, a lake forms and then quickly drains away through channels in the limestone, called *katavóthres*. The strong springs beside the marsh at Psátha probably draw their water from this area. The smaller pocket is similar in character. Both are arable. The surrounding hillsides were previously thickly wooded with pines, which were tapped for resin. In 1840–1 Buchon travelled through this area and described the extensive woods.[12] During the last war the Germans felled much timber and started fires, which have destroyed most of the trees and scrub.

Apart from the road, which we have described, there are several tracks through this area. Starting from Áno-Alepokhóri, one follows the ridge and ascends to a low col, from which one skirts the west side of Megálo Vathikhóri, passing below the small church Áyios Taxiárkhes, and then ascends gradually to Tower F (see FIG. 1, track 2). Most of this track coincides with a motor-road, which the Germans made to bring down timber. It took me one and a half hours to walk from Áno-Alepokhóri to Tower F. A second path leaves the road from Megara to Pagae at a point before one reaches the watershed. Starting from this point one climbs up through a pass between the two peaks of Mt. Koróna, follows the ridge between the two Vathikhória basins and drops down to Tower C. This path is very well marked, and I noticed rut-marks in the rock-bed during the ascent. This also took one and a half hours of walking. Although steeper than the road past Mikró Vathikhóri to Tower C, it is fresher in summer. Both these paths were evidently practicable for carts in the past, so that there were three carriageable roads leading into the Vathikhória area from the Central Megarid.

From Tower C a very steep path, fit only for a man or pack-animal, leads into Attica (see FIG. 1, track 3). I climbed for one hour to a high saddle on Mt. Patéras between points 976 and 1108. From there one descends by an easy route down a long valley to reach Áyios Yeóryios in one hour, and the Paliokhóri of Koundoúra in a further one and a half hours, making three and a half hours in all from Tower C. From Tower F Buchon took a path ' par un chemin assez facile ' to the ridge west of Mt. Karídhi; from there he descended to Aegosthena, a path which he described as follows (see FIG. 1, track 1). ' Cette partie du chemin est fort difficile et s'embranche avec le chemin non moins rocailleux qui conduit à Porto Germano, l'antique Égosthènes.' A further path begins from Tower F, takes the same line as Buchon's path, and then turns round the end of a spur to join the main route over the saddle of Mt. Karídhi (see FIG. 1, track 4). These three paths are, and always were, impracticable for carts; they ascend the very steep slopes in short zig-zags, such as a mule makes.

B. THE ANCIENT AND MEDIAEVAL FORTIFICATIONS IN THE AREA OF THE VATHIKHÓRIA

In 1840 Buchon observed two towers (C and F on the map), and these have been described by H. J. W. Tillyard.[13] There are in addition the remains of five towers, which seem to have escaped notice hitherto. All are built of the local limestone. Of the seven towers five are adjacent to the main road, which I have described, coming from Kriekoúki to the Central Megarid. Tower A stands on a small, steep crag, beside which the road passes. The top of the crag measures *c.* 10 × 24 m., and the line of the walls enclosing it can be traced. One large block of masonry has a cut socket 24 × 20 cm. × 10 cm. deep. Tower B, which is close to the road, is some 7·50 m. square, the foundations only being extant. Tower C, which is also close to the road, has been described by Tillyard. It stands to a height of some 12 m., and it is less than 6 m. square. Tower D stands some thirty paces back from the road. It measures 11 × 9·5 m. externally, and in the south wall there is a doorway 1·10 m. wide. Tower E stands at about the same distance from the road; it measures 12 × 10·5 m. (PLATE 4 (*d*)). Inside it among the débris there is a block of masonry with two socket-holes cut for floor-joists (measuring 15 × 11 cm. × 16 cm. deep); these holes are in the centre and not on the edge of the block (which measures 1 × 0·45 m. × 0·30 m. thick), and they are so cut that the broader side of the joist was vertical.

---

[12] J. A. Buchon, *La Grèce continentale et la Morée* (1843), 555–8.

[13] *BSA* XII (1905/6), 101–8.

That Towers A, B, D, and E are earlier than Tower C, is indicated by the following considerations. Tower C stands almost to its original height, whereas the other towers have been overthrown, so that only two or three courses are in position. Tower C is much smaller in ground-plan. The construction of Tower C is less massive than that of the other towers; its walls are one block thick, whereas those of the others are two blocks thick (0·75 m.), varied occasionally by a single block being laid as a stretcher through the wall. The masonry of Tower C is ashlar, the blocks are dressed with downward strokes, and the angle-blocks are drafted at the corner (PLATE 5 (*c*)). The masonry of the other towers consists of rectangular and trapezoidal blocks, well-cut but rough in finish, and there is no drafting of the angle-blocks. In Tower C the sockets for the joists were cut on the edge of the blocks; in Tower E, if we may judge by the one block, they were cut in the centre of the blocks. Beside Tower C I did not find fragments of roof-tiles (although my search was not thorough); but beside the other towers I found many pieces of black-glazed roof tiles. It is then probable that Towers A, B, D, and E were contemporary with one another, and that Tower C was built at some time after their overthrow, when different styles and methods were in vogue.

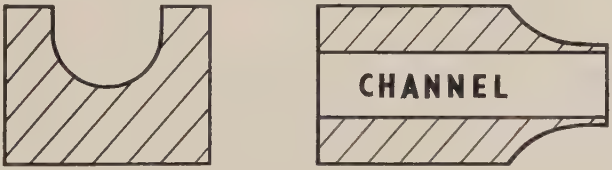


FIG. 2.—WATER SPOUTS OF TOWERS C AND F IN VERTICAL AND HORIZONTAL SECTION.

Tower F, which is described by Tillyard, is a round tower, standing to a height of some 17 m.; the diameter (including the walls) is *c.* 7 m., and the walls are one block thick. The faces of the blocks both inside and outside are dressed with downward strokes, and the style is ashlar; an occasional block is trapezoidal, the majority being rectangular (PLATE 5 (*d*)). In size, wall-thickness, dressing and style, and in the fact that it stands almost to its original height, Tower F resembles Tower C. Some further points suggest that they were contemporary. In each there is a single stone water-spout projecting from the upper part of the tower to a distance of some two feet, and the two waterspouts are exactly similar (PLATE 5 (*b*); FIG. 2). In each tower the waterspout is placed some three feet below the top of the battlement. It is probable that the top of the tower was open; one could then stand behind the battlements on a floor which acted as the roof and was drained by the waterspout. This floor or roof would not have been covered with tiles, which explains why I did not notice tile-fragments beside towers C and F. Towers A, B, D, and E were roofed with tiles; their roofs were probably gabled, as in the great tower at Aegosthena. Towers C and F have slit-windows, which splay on the inside, in the walls on the second storey, and the hanging and the size of the door in each case was similar. Some clay has been smeared over the interstices of the blocks in Tower F, and has, I believe, concealed some splayed slit-windows on the ground floor. The clay is a local clay, setting hard like mortar; for it is used on the wall of a recently constructed sheepfold beside the tower. It was probably added to the tower by shepherds in recent times, to keep out the draught. There is none of it in the horizontal joints.[14]

Tillyard described tower F as standing on a platform, which was supported by a remnant of retaining wall. But in the scrub, which has been thinned by fire or by goats, other pieces of wall are now visible. These walls are the foundation courses of a large fortification some 25 m. square (G on the map). The walls are two blocks thick, and they stand two or three courses high, except where the wall forms the back of the sheepfold and is exposed to a height of four or five courses. Of the blocks some are rectangular and some trapezoidal; they are large and small in size, well-fitted but roughly finished. This large fortification was evidently overthrown before the small round tower was built inside its periphery; for, had the large fortification been standing, the round tower would have had no field of fire and no purpose. Moreover, the style of construction and masonry in the round tower is different. On the other hand, the resemblances are strong between this square fortification and Towers A, B, D, and E.

It is probable, then, that there were two separate acts of fortification. The first comprised the building of A, B, D, E, and G, and the second the building of C and F. They were separated by an interval of time, during which the first group was destroyed and a different style of fortification came into fashion. Beside tower E I found a piece of good black-glaze pottery, not of Attic manufacture, and Mr. J. M. Cook found in the débris inside the tower a piece of ridge-tile; these date probably to the period 400–325 B.C., and the black-glaze sherd rather to the first half of the fourth century.[15] They suggest a *terminus ante quem* Tower E was built. The wall of G, which forms the back wall of the sheepfold, resembles closely the wall of the fortress at Oenoe on the Megarian-Corinthian frontier, which has been dated ' probably in the late fifth century '.[16] We may tentatively put the building of A, B, D, E, and G in the Peloponnesian War or in the Corinthian War, rather than in the time of Epaminondas. On the other hand, Towers C and F, which Tillyard attributed to the fourth century, may be placed in the second half of that century. Round towers may have come into vogue in the time of Philip II of Macedon. The great tower at Aegosthena is two blocks thick, with an occasional stretcher; this feature is common to my earlier group of fortifications, but it may arise only from necessity in building any large tower. The tower at Aegosthena resembles Tower C in that the angle-blocks are drafted and the sockets for the joists are cut on the edge of the blocks. The tower at Aegosthena is dated by R. L. Scranton ' early in the fourth century '.[17] This is perhaps a *terminus post quem* rather than a static date. The walls of Pagae are ashlar in style with large blocks of conglomerate stone. They are different from all the fortifications which we have mentioned. Further investigation may clarify these and other points in the fortifications of the Megarid.

[14] *BSA* XII (1905/6), 105, Tillyard says ' almost every joint is filled with mortar '. This is true only of the vertical joints, many of which are sprung.

[15] Mr. R. V. Nicholls of the British School kindly dated the fragment of ridge-tile.

[16] *Perachora* I 8, with fig. 3 *c*.

[17] R. L. Scranton, *Greek Walls* 81, 176. The round tower at Munychia is pre-337/6 (Scranton, *op. cit.* 119 and n. 32). In associating round towers with the time of Philip II, I rest on the use of the semi-circular towers at Cytinium, which Philip fortified, and at Ambracia, Paramythiá, Goúmini, and Ljábovo in Epirus, where Philip's influence may have been at work.

Tillyard, who saw only Towers C and F, suggested that they were built for signalling. But from Tower C one sees through the narrow cleft not Megara but only the plain below Mt. Gerania; and the tower is not as high as some of the trees in the vicinity. From Tower F one cannot see Pagae. Nor are the seven towers sited as towers of refuge; for all, except Tower A, are on flat ground, and the crags on the surrounding hills offer better places for refuge. They were evidently built to control the road which passes beside them. Whether one comes from Pagae, Tripodiscus (near Kháni Dervéni) or Megara, one can reach the pass over Mt. Karídhi only by passing some of these towers. They command the strategic point in the direct route from Corinthia to Boeotia. Their presence shows that the road was of the greatest importance in the fifth and fourth centuries B.C.

Buchon expressed the belief that there might be some mediaeval fortifications in the vicinity of Tower F. As the ground was heavily wooded, he did not investigate, and he went on to Aegosthena. Walking from Tower F to Tower C, I came across a round tower, *c.* 4·50 m. in external diameter, which was in ruins; it was built of small stones, ill-cut and rendered in all the joints with hard-set clay. On the ridge beside path 4 (see FIG. 1), almost at the topmost point of the pass, there is a demolished wall, which runs parallel to the path for some 250 m. The foundation is *c.* 2 m. wide, and the foundation blocks are smaller than in classical fortifications. The wall was deliberately demolished, the stones being splintered. A similar piece of wall lies *c.* 100 m. south-east of path 3 (see FIG. 1), occupying part of the saddle in the Mt. Patéras range. It runs straight for *c.* 150 m. and then at an obtuse angle for *c.* 50 m. A similar but more shattered wall, some 50 m. long, is situated some twenty minutes above Áyios Vasílios on the road up Mt. Karídhi. It runs almost at right-angles to the line of the road, and it is divided by the road. These walls are not classical in character. They may bear some relation to a number of cisterns, two of which Tillyard saw and described as 'probably mediaeval'. Beside Tower C and Tower F there are two pear-shaped deep cisterns, of which the walls are coated with a hard clay plaster. There are two more of similar type between Tower F and the basin of Megálo Vathikhóri, a third of similar type on the ridge between the two basins, and a small irregularly shaped and shallower cistern, also lined with clay, near Tower E. There are, in addition, three cisterns still in use, one north-east of Tower C in the trees, one south of Tower A and one below Áyios Taxiárkhes. It is possible, as we shall see, that these fortifications and the pear-shaped cisterns were constructed in the thirteenth century.

When walking from Tower C to the Paliokhóri of Koundoúra, I visited the ancient site 'Pírgos', just south of Áyios Yeóryios. The lay-out of the foundations indicates that it was a fortified village and not a walled site or acropolis; I picked up some bits of black-glazed pottery and black-glazed tile. Three-quarters of an hour down the valley, where the valley-bed is narrowest, the foundation courses of a small and, I thought, circular tower were just visible in the thick scrub. The tower appeared to be Hellenistic, the blocks being smaller than those used in the towers of the Megarid.[18]

C. SOME CAMPAIGNS IN THE NORTHERN MEGARID

In the fifth and fourth centuries the commissariat must normally have used wheeled vehicles to transport the supplies and the siege-equipment of large armies, numbering 10,000 hoplites or more, apart from their attendants.[19] Pack-animals and porters were also employed; where wheeled vehicles could not pass, they alone were used. In the campaign of Plataea in 479, for instance, the problem of feeding a force numbering about 100,000 men of all services was doubtless solved by bringing up supplies from the Peloponnese on waggons, which followed the routes through the Megarid and in particular the Road of the Towers, if I may so name the section from the Vathikhória to Áyios Vasílios. The longer carriageable route via Megara and Eleusis, and perhaps the route via Kandíli and Koundoúra, which Gell describes,[20] were probably subsidiary routes. Supply by sea to Aegosthena was also practicable. On occasions when Attica was at war with her Dorian neighbours the Road of the Towers was of even greater importance; for it was then the only available carriageable route between the Peloponnese and Central Greece. This may be illustrated from several campaigns.

---

[18] The site at Pírgos is not marked on Milchhöfer's *Übersichtskarte von Attika.*

In 431 the Boeotians failed to capture Plataea, which threatened the northern passes on this route. While part of their force held down the enemy at Plataea, it is probable that the main Boeotian levy crossed from Kriekoúki into the depression of Áyios Vasílios. Archidamus led the Peloponnesian army, numbering probably some 40,000 men, from the Isthmus to join forces with the Boeotians. As he did not enter Attic territory, he evidently used the Road of the Towers and crossed Mt. Karídhi. His siege equipment and his supplies were presumably transported, at least in part, on waggons. The combined forces then attacked the Attic border-fortress of Oenoe, which I place at Víllia. His troops, numbering some 60,000,[21] were supplied mainly, one conjectures, from Boeotia, but also from the Megarid and the Peloponnese along the route by which he had come.[22]

The speed of movement along this route is clear from the campaign of 424 (Thuc. IV 68. 4–72). At dawn the Athenians failed to take Megara by surprise. One message was sent at once by the Megarians to Brasidas, who was in the vicinity of Corinth and Sicyon, and another to Boeotia. On receipt of the message Brasidas sent a despatch to Boeotia, ordering the Boeotians to meet him at Tripodiscus at dawn forty-eight hours after the attempted capture of Megara. The Boeotians, meanwhile, on receiving their message from Megara had mustered their levy at Plataea, before the despatch from Brasidas arrived. They then decided to send a part of their levy, namely 2,200 hoplites and 600 cavalry, to the rendezvous at Tripodiscus. Now the walking time from Megara to the flat part of the Isthmus is eight hours and to Kriekoúki in Boeotia is seven and a quarter hours, so that horsemen could ride from Megara to Corinth and to Thebes in something like six hours. By midday, then, on the first day Brasidas and the Boeotarchs knew of the Athenian attack on Megara. As the walking time from the flat part of the Isthmus to Kriekoúki is eleven hours, a horseman might ride from Corinth to Kriekoúki in some eight hours, part being in darkness. The plan of Brasidas was thus known to the Boeotarchs in the late evening of the first day. As surprise was essential and the rendezvous was at dawn, both forces set out at nightfall on the second day. Before dawn on the third day Brasidas and 3,800 hoplites reached Tripodiscus near

---

[19] Thuc. V 72. 3 refers to 'the waggons' at the battle of Mantinea, assuming it to be known that waggons carried the baggage, etc.; *cf.* Hdt. VII 40. 1 and Xenophon *HG* IV 1. 24 for the Persian use of waggons. The Spartan army had a regular supply corps (Xenophon *Lac.* 13. 4). On the difficult route from Creusis to Aegosthena Cleombrotus used pack-animals only (Xenophon *HG* V 4. 17). This was, I think, exceptional. For during the war, when I moved with forces of guerilla troops in Greece, the problem of carrying supplies even for 300 men by pack-animals was serious. The idea that an ancient army lived on the countryside which it invaded is often fallacious; for, if the flocks had been driven away and it was not harvest-time, the chance of finding much foodstuff was small.

[20] *Itinerary of Greece* 12.

[21] Plutarch, *Per.* 33.

[22] Thuc. II 10. 2; 12. 4–5; 13. 1; 18. 1. On the position of Oenoe see the Appendix. Wallace, *Phoenix*, Suppl. Vol. I (1952), 82, believing the northern Megarid to be roadless, has suggested that the Spartan force moved by sea across the Gulf of Corinth; a naval operation on this unprecedented scale by the Peloponnesians would surely have been recorded by Thucydides.

Kháni Dervéni; they had covered a distance which takes one man five hours if he starts from the flat part of the Isthmus. Brasidas then went on with 300 men to Megara, some three hours distant, escaping the notice of the Athenians, probably because it was still dark. The Boeotarchs reached Tripodiscus at dawn; if they started from Kriekoúki, they had covered a distance which takes a single man six hours of walking by daylight. The movement by night of large forces, especially when they include cavalry, is a much slower operation. It was made possible in this case only because the road, which we have described, was a good one.

The relation between the Road of the Towers and the tracks in the Northern Megarid is illustrated by the campaign of 446. The Peloponnesian army advanced into Attica as far as Eleusis and Thria.[23] An Athenian force was on garrison duty at Pagae. Its quickest route into Attica was via the Vathikhória and over Mt. Patéras to Koundoúra or, alternatively, to the vicinity of Mándra (see FIG. 1, tracks 2 and 3). To walk from Pagae to Koundoúra takes a man some six hours. If the way had been clear, the Athenian force would have used it. Instead, it embarked on a very long détour. With the guidance of a Megarian the Athenians marched ' from Pagae through Boeotia to Athens '. During their passage through Boeotian territory they killed some Boeotians and captured 2,000 slaves.[24] They evidently took the difficult path from Pagae to Aegosthena along the coast—a matter of three hours hard going for a single man and much worse for hoplites carrying their equipment. That is, no doubt, why they needed the services of a Megarian guide. On reaching Aegosthena they still did not turn east towards Víllia and Attica, presumably because the way was barred. They went on into Boeotia. They must have gone either by Creusis or by Plataea. The former is more probable, because, if they had gone by Plataea, they would have crossed only a small part of Boeotian territory and could hardly have collected 2,000 slaves *en route*. Why were the direct track through the Vathikhória to Koundoúra and the road from Aegosthena to Víllia barred to the Athenian force? The answer is presumably that the Road of the Towers was held by an enemy army. Either Pleistoanax invaded by the same route as Archidamus did later in 431, or the Boeotians, who had recently revolted from Athens, were on the march to join the Peloponnesian force at Megara and picketed their line of supply in the Northern Megarid.[25] At all events, when the Athenians passed through Boeotia on their way to Athens, the Boeotian army was absent; for they found the countryside bare of troops.

The value of the road from Áyios Vasílios to Kriekoúki and the branch track to Plataea, as compared with the coastal route from Aegosthena to Creusis, emerges from the campaigns of 378–6. When Cleombrotus marched up from the Peloponnese, his aim was to isolate Thebes and to avoid any breach with Athens. The Athenians under Chabrias guarded ' the road through Eleutherae ', that is to say through the Attic territory of Oenoe and Eleutherae. Cleombrotus did not challenge them. He advanced ' along the road leading to Plataea '. He succeeded in carrying the pass and descended to Plataea, where a Spartan garrison was in position. It appears, then, that he took the Road of the Towers through the Megarid to Áyios Vasílios, ascended the range of Cithaeron and, instead of going to Kriekoúki turned aside to seize the alternative pass above Plataea.[26] In the same winter he returned via Creusis and Aegosthena to the Central Megarid. He presumably took this route because the eastern passes over Mt. Cithaeron were blocked by snow. But between Creusis and

---

[23] Thuc. I 114. 2. [24] Tod *GHI* 41. *Cf.* Gomme, *Commentary on Thucydides*, I 340.

[25] The former alternative seems more likely, since it allows time for Pericles to hear of the revolt of Megara and the Peloponnesian preparations, to return from Euboea, and to be in position at Athens before the invasion took place.

[26] Xenophon *HG* V 4. 14.

Aegosthena he lost many pack-animals and much gear, which fell over the precipices, and his hoplites had to abandon their heavy shields during a storm.[27] This route was evidently not carriageable. But, having once reached Aegosthena, his difficulties were over, for he could take the main road home via Áyios Vasílios and Vathikhória. The Athenians, whose territory had not been violated by Cleombrotus, now dealt with the two generals who had helped in the liberation of Thebes. For they saw that the Spartans had invaded Theban territory 'marching alongside Attica' (Xenophon *HG* V 4. 19: παριόντες τὴν 'Αττικήν),[28] and they hoped to remain neutral. It was only when Sphodrias raided the Eleusinian plain that Attic territory was violated and Athens went to war. Later in 378 and twice in 377 Agesilaus entered and returned from Boeotia by the eastern passes over Mt. Cithaeron. When Cleombrotus failed to carry these passes in 376, the alternative proposed by his allies was not to force a way through by Creusis, but to go by sea to Creusis.[29]

There are several examples of the manner in which an army could move from Central Greece to the Peloponnese without violating Attic territory. In 457 the Spartan army lay in Boeotia. Athens held Pagae and Megara; she picketed the passes over Mt. Gerania, and to cross the mountain elsewhere was not possible. The Spartans, therefore, fought the battle of Tanagra. Their prowess vindicated, they advanced into the Megarid (not into Attica), cut down the trees (probably between Pagae and Megara), and returned 'through Gerania and the Isthmus', the Athenian pickets evidently abandoning their posts.[30] In 419 a Boeotian army of 11,000 men and 500 mounts entered and left the Peloponnese without touching Attic territory.[31] In 371 after the battle of Leuctra, when the defeated Spartans withdrew from Boeotia via Creusis to Aegosthena, they met the army of Archidamus, which had come up from the Isthmus without entering Attica; their combined forces then withdrew from Aegosthena to Corinth.[32] Thereafter, Epaminondas marched repeatedly with large armies from Boeotia into the Peloponnese without infringing Attic territory.

A final example may be taken from the *Chronicle of the Morea*, 3259–3269 (ed. J. Schmitt). In the year 1258 the rival powers were the Prince of Achaea, William Villehardouin, whose realm extended to the Isthmus, and the Duke of Athens, ruler of Megaris, Attica and Central Greece. The Prince is the subject of the first three lines, and the Duke is ὁ Μέγας Κύρης.

> κι ὥρθωσεν τὰ φουσσᾶτα του, στὴν Κόρινθον ἀπῆλθεν·
> μὲ δύναμιν ἀπέρασε τὴν σκάλαν τῶν Μεγάρων,
> μὲ πόλεμον ἐκέρδισεν ἐκείνην τὴν Κλεισοῦραν.
> ὁ Μέγας Κύρης τὸ ἔμαθεν κ' ἐθλίβη το μεγάλως,
> διατὶ ἔμαθε ὅτι ἐπέρασεν ὁ πρίγκιπας τὴν σκάλαν
> κ' ἐσέβην εἰς τὸν τόπον του κ' ὑπάει γυρεύοντά τον.
> ἀπῆρεν τὰ φουσσᾶτα του κ' ἦλθεν εἰς ἀπαντήν του,
> ἐκεῖ ἐσυναπαντήθησαν εἰς τὸ Καρύδι τὸ ὄρος.
> μὲ πόλεμον ἀρχάσασιν εἰς τὸ βουνὶν ἀπάνω.
> ὡς ἔνι γὰρ ὁ Θεὸς κριτὴς καὶ κρένει εἰς τὸ δίκαιον,
> ἔδωκεν τοῦ πρίγκιπος τὸν πόλεμο ἐκέρδισεν.

Advancing from the Isthmus, the Prince of Achaea captured the Skala of Megara and the pass of Megara. He thus held the coastal route by the Scironian cliffs and the road through Gerania. The Duke of Athens evidently adopted a defensive position, protecting Attica and the pass over Mt. Karídhi. The battle took place on Mt. Karídhi, the Prince was victorious, and the Duke retreated to Thebes. As Buchon observed, the Prince evidently held the area of the Vathikhória; his intention was either to enter Boeotia or to swing right via Víllia into Attica, as Archidamus did in 431 B.C. The key points for the defence were the pass over Mt. Karídhi and the saddle of Mt. Patéras. It is at these two points that I noticed the post-classical, probably mediaeval, fortifications. Being single walls and not habitable forts, they were apparently field defences, and they were deliberately destroyed. It is a reasonable conjecture that they were built by the army of the Duke of Athens in 1258. The similar fortification between Mt. Karídhi and Áyios Vasílios may have been a second line of defence. The round tower and the pear-shaped cisterns may have been made by the army of the Prince of Achaea.

---

[27] Xenophon *HG* V 4. 16–18.
[28] For the meaning of παριόντες, see Xenophon *HG* V 19 and LS^9 *s.v.*, I.
[29] Xenophon *HG* V 4. 36–60.
[30] Thuc. I 107–8.
[31] Thuc. V 57. 2.
[32] Xenophon *HG* VI 4. 25–6.

D. THE TOPOGRAPHY OF THE NORTHERN MEGARID

The Road of the Towers was presumably used by peaceful travellers as well as by armies. In the *Antonine Itinerary*, for instance, the Roman road ran from Thespiae to Megara forty miles, and from Megara to Eleusis thirteen miles. The road Thespiae–Megara–Eleusis was thus more important than the road Thespiae–Eleutherae–Eleusis–Megara in the third century A.D. The distance given by the *Itinerary* is approximately correct for the Road of the Towers. Forty Roman miles are equivalent to just under sixty kilometres; and, if one measures the road from Thespiae via Kriekoúki, Áyios Vasílios and the Vathikhória to Megara, without allowing for twists and ascents, the distance is some fifty kilometres. The main road from north-west Greece via Creusis to Pagae and Megara, which figures in the Peutinger Table and the Anonymous of Ravenna, must also have used the Road of the Towers.[33]

In the early history of Greece trade and intercourse between Central Greece and the Peloponnese were conducted more by land than by sea (Thuc. I 13. 5).[34] Thereby Corinth, the mistress of the Isthmus, rose to prosperity as a centre of exchange. The area north of the Isthmus was also important. In the Mycenaean period, when the great centres of power were in Boeotia and Argolis and when nobles travelled by chariot and humbler men used waggons, there must have been considerable traffic between Central Greece and the Peloponnese. In the Sub-Mycenaean period it is probable that Ionians controlled the Megarid. Then the Dorians conquered and settled the Megarid to join hands with their kindred in Boeotia and oust the Ionians from their control of the passage. The attempts of Athens to regain control of the passage by occupying Pagae and Megara, and by acquiring Eleutherae and Plataea, were generally opposed by the Peloponnesians and by the Boeotians.

If we are correct in attributing commercial as well as military importance to the road through the centre of the Megarid, we should expect to find some indication of settlements on the route. Nowadays there are no settlements. I walked from Kriekoúki to Áyioi Theódhoroi, the ancient Crommyon, without passing an inhabited house *en route*. The fields at Plátanos are worked by villagers from Áyioi Theódhoroi, those at Kháni Dervéni and in the plain below by villagers from Megara, and those of the Vathikhória and Áyios Vasílios by villagers from Víllia. The population is evidently concentrated in the towns to a greater degree than in antiquity, and in particular it is drawn towards the main route of modern times through Áyioi Theódhoroi, Megara, and north-west Attica, to which Víllia looks for trade and intercourse. Another factor causing this shift of population is, as we shall see, the pauperisation of the Northern Megarid through erosion and desiccation.

---

[33] *Ant. Itin. ed.* Wesseling 326; *ed.* Cuntz 49. *Tab. Peut.* route 79 (*ed.* K. Miller, col. 565) gives the stations; Crusa (Creusis)–Pache(Pagae)–Megara–Isthmus, and route 81 (col. 577): Plataea–Eleusis–Megara. *Anon. Rav.* 198. 9 (*ed.* Pinder and Parthey) gives Athens–Eleusis–Megara–Pache (Pagae)–Cerusa (Creusis); 199. 1 gives Eleusis–Plataea–Thespiae; and 375. 15 gives Athens–Eleusis–Megara–Isthmus. In this net of main roads the stretch from Creusis to Pagae must have included the Road of the Towers.

[34] Even for a maritime state such as Athens transport by land was cheaper than transport by sea (Thuc. VII 28. 1).

The burials at Plátanos suggest that there was a settlement there in antiquity. The abundance of water made it an important place on the main route through Gerania. There are still extensive forests of pines, which are tapped for resin, and of firs on the upper slopes, which are cut for timber; these cover the southern flanks of Mt. Gerania. There is also grazing for goats and some sheep on the uplands of the mountain. In the modern administrative division of Greece Plátanos lies just in Corinthia, and it probably did so in the fifth century B.C. The central part of the Megarid, stretching from the watershed to the Saronic Gulf, belongs to Megara. It is peppered with whitewashed buildings, known as πατητήρια, in which the grapes are trodden at vintage-time; they are deserted during the remainder of the year. In antiquity Tripodiscus was one of the κῶμαι of the Megarians (Thuc. IV 70. 1). It is clear from the campaign of Brasidas in 424 B.C. that it lay at a strategic point on the main route between Corinth and Boeotia. Strabo states that in his time the market of Megara was at Tripodiscus (Strabo 394 *fin.*: καθ' ὃ ἡ νῦν ἀγορὰ τῶν Μεγάρων κεῖται). The choice of Tripodiscus as a commercial centre was probably due both to its position on the main route from Corinth to Boeotia and to its proximity to Pagae, an active port in Roman imperial times.[35] The foundations of ancient buildings have been observed at the site of Tripodiscus, which I have not visited.

The Northern Megarid is described by Pausanias (I 44. 4): ἡ δ' ὀρεινὴ τῆς Μεγαρίδος τῆς Βοιωτῶν ἐστὶν ὅμορος, ἐν ᾗ Μεγαρεῦσι Παγαὶ πόλις ἑτέρα δὲ Αἰγόσθενα ᾤκισται. It is at first sight surprising that Pagae is reckoned as appertaining to the mountainous part of Megaris. But this is so in the modern division of Greece. For the deme of Víllia includes Áno-Alepokhóri and Káto-Alepokhóri, most of the Vathikhória basin, and all the northern Megarid. This is indeed realistic. Káto-Alepokhóri is inhabited only when crops are being sown and reaped, and Áno-Alepokhóri is in a similar case, except that a few families stay all the year round. The fields of the two villages are worked by the people of Víllia, some five hours distant by mule, the Villiotes being a hardy race of hillmen of Albanian descent. In antiquity the centres of population were on the coast at Aegosthena and Pagae, the two ports of the Halcyonic Gulf (Scylax 40). As Tripodiscus probably possessed the eastern slopes of Mt. Gerania, Pagae's territory may have extended into the mountainous country eastwards.

The ruins of Pagae are situated on a low, steep-sided ridge, which is separated from the sea by some 150 metres of level foreshore. To the west of the ridge a stream-bed cuts deep through its valley and the foreshore to reach the sea. In its banks some twenty feet below the top there are sherds of the classical period. The banks are composed entirely of yellow silt, which has been washed down from the deeply eroded hillside of yellow flysch. From this fact one may conclude, with some assurance, that the present level foreshore has accumulated since classical times. The walled site of the town encloses an area some 450 metres square, and the fortifications do not extend on to the level foreshore. When the Athenians fortified Pagae *c.* 460 B.C., the site was probably washed by the sea, and the harbour lay under the walls on the western side. The population must have been considerable; the people perhaps farmed some of the land south of the watershed. The sherds on the site and along the shore, as one walks north-eastwards, are mainly of the Roman period.

---

[35] The direct route from Megara to Pagae, which the modern road follows, passes well below Tripodiscus, and it presumably did so in ancient times.

The ancient cemetery of Pagae is said to be on a wooded knoll SSE. of Káto-Alepokhóri, high up the hillside but below the ridge. I did not visit it. On a ridge of yellow flysch (full of the fossil shells on which Pausanias (I 44. 9) commented) at a few minutes distance south-east of Áno-Alepokhóri a number of unlined shallow graves were opened some years ago by villagers. I picked up some pieces of late-sixth-century and of fifth-century pottery. The clay of some sherds was light buff in colour. It is probable, then, that there was at that time a settlement on the site of Áno-Alepokhóri. Between the springs of Áno-Alepokhóri and Pagae terracotta pipes ' as thick as a man ' have been found by villagers; they evidently piped the water down to Pagae. I walked from Áno-Alepokhóri past the church of Áyia Soteíra, where there used to be a spring and is now a well, to reach the ridge just above ' the Cliffs ' in one hour. On the lower part of the ridge, just before it meets the path running from Pagae to Psátha, there are some thirty graves which were opened some years ago by villagers. The graves are rather small pits, dug in the yellow flysch and not lined with stone. The pottery from the graves is of the second half of the sixth century, including a fragment of the handle of a Laconian krater, and of the fifth, fourth, and third centuries B.C. The clay is neither Attic nor Corinthian, being generally redder than Attic or more buff than Corinthian. Below the ridge and near the path I picked up a worked piece of hard stone, which is probably a fragment of a pounder. Beside the path, as one descends towards Pagae, there are a few pieces of retaining wall and some sherds. There were perhaps some farmhouses at this place in antiquity.

At Psátha it is probable that much of the narrow strip of foreshore has accumulated since the classical period; for it is composed of silt, and the precipitous and steep slopes, which enclose the bay on the landward side, have evidently been denuded by erosion. The little harbour of Psátha is now a better one than anything Káto-Alepokhóri can offer. But Scylax, in describing this coast, mentioned only Pagae and Aegosthena. Inland of the foreshore, on the lowest declivities of the limestone, there are a number of small apertures in a limestone face, which gave access evidently (for I did not inspect them) into small caves or perhaps small rock-cut tombs. In the next bay Aegosthena is a strongly fortified site comparable in size to Pagae; its territory probably extended inland as far as the watershed. When one looks from Pagae or walks along the coast, the most conspicuous feature is Mt. Mítikas, a long ridge undulating like the vertebrae of a dog's tail. This is doubtless the ancient Cynosoura, after which the fifth group of the early Dorian inhabitants of the Megarid were named Cynosoureis.[36]

On the inland sector, on the route from Áno-Alepokhóri to Tower F, when one reaches the low col leading into the large basin, there are the remains of a village of some seventy houses, which may belong to the eighteenth or nineteenth century. They look out to sea over Psátha. Crossing the col and turning towards the church Áyios Taxiárkhes, one comes to a cistern, beside which there is a capital of late Roman date and a plain monolithic column of greenish marble, 3 m. long and 0.40 m. in diameter. Just before one reaches Tower F, one walks beside a dry stream-bed. In its left bank the rubble under a shelf of rock has been carved out to make some eight chambers, squarish in shape, of which the sides in some cases are *c.* 5 m. long and in other cases *c.* 7 m. long and the roofs are slightly domed. In one the original entry is extant, a small doorway cut in the hard-set rubble. In each chamber there are two and sometimes three small square niches in the side and back walls. In some a chimney has been added by breaking through the wall facing the stream-bed, alongside and above the original entry. These were originally chamber-tombs, perhaps of Roman date or earlier. On the slopes round Tower F, and especially on the bluff between it and the large basin, and on the slopes round the other towers there are many remains of habitation: foundation walls of buildings, terrace walls for fields, and heaps of stones stacked more carefully than is usual in modern Greek agriculture. I picked up a few pieces of black-glaze pottery. There was evidently a settlement in ancient times near the basin of the Megálo Vathikhóri. The most likely situation for such a settlement is in the vicinity of the church Áyios Taxiárkhes.

---

[36] Plutarch, *Greek Question* 17. Many ancient and modern place-names in the Megarid are descriptive of natural features or products: Pagae, Crommyon, Schoenus, Aigeiros, Plátanos, Vathikhóri, Psátha, Cynosoura, Koróna, Kérata, Karídhi (walnut), Kaliakoúdha (crow), Mítikas (nose).

Following the track from the central part of the plain and ascending towards the cleft in Mt. Koróna, one sees on one's left a number of walls, built for terracing fields where none are today, and the foundations of several buildings. They may be ancient, but I did not find any distinctive sherds. Proceeding towards Tower C, I noted on the ridge between the two basins the remains of a small hamlet of some twenty houses and a pear-shaped cistern. This hamlet was probably occupied in the eighteenth or nineteenth century.

Nowadays the area of the Vathikhória is uninhabited and desolate. The chief reason is lack of water; for the area is dependent on cisterns, filled with rain-water, and most of them are decrepit. The question arises whether there was more water available at the time when the towers were built, the main road was in use, and there was a settlement near the large basin. The flat bed of the basin (see FIG. 3) was evidently formed under a lake; and it is common in Karst limestone formations, of which this area is an example, that the subterranean *katavóthres* choke or clear themselves. At the time when there was a lake and the surrounding hillsides were less denuded of soil than they are today, there would have been good grazing for sheep. In late May 1953 two flocks of sheep were leaving the basin for lack of water. In antiquity Megara was famous for her wool; it is probable that the Megarid, and in particular this area, afforded extensive grazing for sheep. There are, moreover, two indications in ancient writers that there was a lake in the Megarid.

During the two or three years before Aeschylus produced the *Agamemnon* the Athenians were in occupation of Pagae and Megara. They probably used the track leading from Attica through the Vathikhória, and many Athenians were familiar with the countryside between Mt. Cithaeron and Mt. Gerania. In the play, when the beacon-signal flashed from Mt. Cithaeron to the ' goat-traversed ' mountain, which I take to be Mt. Gerania, the light shot over the ' staring-eyed lake '. As one looks from the pass on the Cithaeron ridge between Kriekoúki and Áyios Vasílios, and again as one looks down from the pass on Mt. Karídhi, the basin of Vathikhória is on the direct line to Mt. Gerania; on the map, too, it is close to the line from Mt. Cithaeron to Mt. Gerania. The epithet ' staring-eyed ' is particularly appropriate to the setting of the basin. The flat silt bed is roughly circular. It is surrounded by beetling crags and by steep slopes, which are still forested on the south side. The only possible alternative in the area between the two mountains is the swamp by Psátha. Now it shows only a thin channel of open water. In antiquity the belt of foreshore was probably thinner, and the stare of the water in the swamp would have been offset by the great expanse of sea-water beside it. If Aeschylus' words are to be taken as accurate, the ' staring-eyed lake ' can hardly have been anywhere else than in the basin of Megálo Vathikhóri.[37]

---

[37] Aeschylus *Ag.* 302; λίμνην δ' ὑπὲρ Γοργῶπιν ἔσκηψεν φάος. The word Γοργῶπις may be a descriptive epithet or a place-name, similar to those mentioned in the last note. That the ' goat-traversed ' mountain is Mt. Gerania seems most probable; for it lies on the line towards Mt. Arachnaeus, and in line 360 Aeschylus mentions a headland jutting into the Saronic Gulf, which fits the stage of the beacon-signal from Gerania to Arachnaeus. Such signals from Cithaeron to Gerania and the Peloponnese may have been employed in the Persian Wars during the campaign of Plataea. It has been suggested that Aeschylus' lake should be identified with Lake Mavrolímni or Lake Vouliagméni. But the former is north of Mt. Gerania, and the latter west of Mt. Gerania, so that neither is on the line of fire from Mt. Cithaeron. For recent discussions see *Perachora* I 94; *RE* XXI (2nd series) 1371 and XV 169; Fraenkel, *Aeschylus Ag.* II 160.

In his *Greek Question* 59 Plutarch explains why the Megarians were called 'waggon-rollers'. Some pilgrims, travelling with their wives and children from the Peloponnese to Delphi, camped at Aigeiroi by the Lake (κατηυλίσθησαν ἐν Αἰγείροις παρὰ τὴν λίμνην).

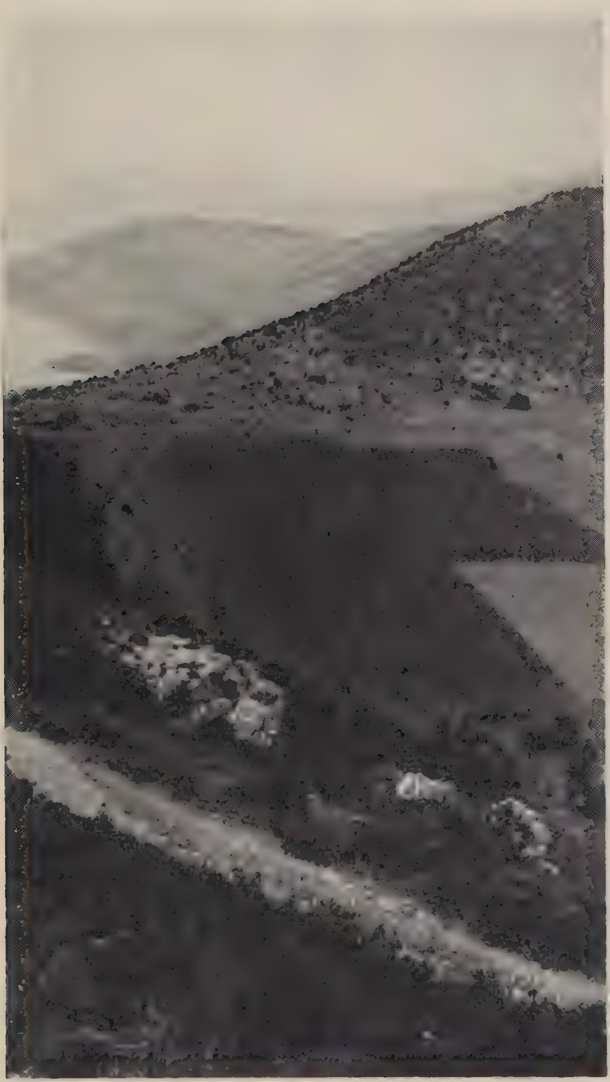


FIG. 3.—PART OF THE LAKE-BED OF MEGÁLO VATHIKHÓRI AND THE BAY OF PSÁTHA, SEEN FROM THE EAST.

There some Megarians set upon them and threw them and their waggons into the Lake. The direct carriageable route from the Peloponnese to Delphi passed, as we have seen, through Plátanos, Tripodiscus, and the Vathikhória. If they travelled slowly and passed by watering points, they would have gone from Tripodiscus to Áno-Alepokhóri and thence to the basin of

Megálo Vathikhóri. On this route the only place where there could have been a lake is in the basin of Megálo Vathikhóri (or in that of the Mikró Vathikhóri, which is much smaller and not visible except from its immediate vicinity). I suggest, therefore, that the name of the ancient settlement in this area was Aigeiroi and that it lay beside the staring-eyed Lake Gorgopis.[38]

The name Aigeiroi is presumably the same as the alternative forms Aigeiros and Aigeiroussa. Suidas, *s.v.* ‘ Αἰγείρου θεά ’ calls it ὄνομα πόλεως, Strabo 394 *fin.* a χωρίον Μεγαρικόν like Polichne, Nisaea and Tripodiscus; and Stephanus Byzantinus, *s.v.* ‘ Αἰγειρούσσα ’ πόλις τῆς Μεγαρίδος. The location of Aigeiros near Megálo Vathikhóri fits the passage in Strabo. For he cites the verses which, the Megarians claimed, once stood in the Homeric Catalogue:

> Αἴας δ' ἐκ Σαλαμῖνος ἄγεν νέας ἔκ τε Πολίχνης
> ἔκ τ' Αἰγειρούσσης Νισαίης τε Τριπόδων τε.

This claim was advanced in the time of Solon or of Peisistratus, and it was directed against Athens. The areas, to which Athens might most reasonably lay claim and which the Megarians might attribute to the realm of Ajax, were the Central and the Northern Megarid, marching with Attica. As Nisaea and Tripodes lie in the southern and eastern parts of this area, Polichne may be identified with Pagae and Aigeiroussa with our site in the Northern Megarid.

The only other mention of Aigeiros is in Book LVI of Theopompus' *Philippica*.[39] The fragments of this book concern the military operations of Philip of Macedon in the Peloponnese after the battle of Chaeronea. He occupied Corinth and Thebes with garrisons. He could not count on the whole-hearted co-operation of Athens, and he had every reason to safeguard the direct route from Corinth to Thebes, which passed west of Attica. The speculation is tempting that the round tower F and the square tower C lay close to the ancient Aigeiros and were built and garrisoned by Macedonians.

N. G. L. Hammond

APPENDIX: THE POSITION OF ELEUTHERAE AND OENOE

The general line of demarcation between Boeotia and its southern neighbours, Megaris and Attica, was formed by the long range of Mt. Cithaeron (Paus. I 38. 8, 44. 6). As the range west of the Plataea pass is hard to traverse, it probably constituted the actual boundary in the fifth and fourth centuries B.C. Aegosthena, being a considerable city, as its ruins testify, evidently possessed the valley running inland to the watershed; its territory then extended just east of Áyios Vasílios. On the north-east its territory marched with that of Plataea. The identification of the ancient place-names, which belong to the area east of Plataea and Áyios Vasílios, is much disputed.

---

[38] Other locations have been suggested (*cf.* W. R. Halliday, *Plutarch's Greek Questions* 219). Near Lake Vouliagméni there are remains of a very small village, and it may have been possible to reach it by waggon from Thermae (Loutráki); but it is off the route to Delphi, and from early times this area was Corinthian and not Megarian. The Lake Mavrolímni is near a coastal route, but this route was probably impracticable for a waggon. A supposed lake near Pagae would have been described as near Pagae and not as near Aigeiroi (assuming Aigeiroi to be a place-name). Lakes in other places were called ‘ Gorgopis ’, the most famous being at Corinth (Cratinas in Hesych. *s.v.* ‘ Γοργῶπις ’). The passage in *Etym. Magn.* 384. 32 refers probably to three or more lakes.

[39] *FGrH* 115 F 241.

Pausanias IX 2. 1–2 describes the road from Plataea to Eleutherae. As he says he passed the ruins of Hysiae and Erythrae on his right, he kept north of the Cithaeron range, until he came to the exit of the pass of Dryoscephalae. There, where the modern road runs, he crossed the range to Eleutherae, which he describes as ‘ built a little above the plain beside Mt. Cithaeron ’ (I 8. 9). He places Eleutherae on the southern flank of Mt. Cithaeron, and his description of the ruins of the town-wall and of their location suits the site known as Gyphtokastro. In the fourth century, when Eleutherae was included in Attica, Chabrias guarded the road towards Boeotia through Eleutherae (Xen. *HG* V 4. 14: τὴν δι᾽ Ἐλευθερῶν ὁδόν), while Cleombrotus ascended Mt. Cithaeron by the road leading to Plataea. ‘ The road through Eleutherae ’ is evidently the road over the Dryoscephalae (Thuc. III 24. 1), and the most important ruins on it lie at Gyphtokastro. I therefore identify Gyphtokastro as Eleutherae and not as Panactum, which is the identification proposed by U. Kahrstedt, *AM* LVII (1932), 8 f.

Pausanias I 38. 8 states that the territory of Plataea marched with that of Athens, when Attica included Eleutherae. He is, however, speaking of his own time, when Hysiae and Erythrae were in ruins and their territories were included in the Plataeis. Then Plataeis and the territory of Eleutherae were contiguous. But in the late sixth century, when Hysiae was a living state, Hysiae and Oenoe were the most distant demes of Attica (Hdt. V 74), and Hysiae was a neighbour of Plataea (Hdt. VI 108. 6; *cf.* IX 15. 3). Hysiae lay on the northern flank of Mt. Cithaeron (Hdt. IX 25. 3), and it was recovered by Boeotia before the battle of Plataea. The position of Hysiae and Erythrae on the north side of the Cithaeron range between Plataea and the pass of Dryoscephalae is apparent also in the narrative of the escape from Plataea in 428 B.C. (Thuc. III 24).

Oenoe, mentioned with Hysiae as the other most distant deme, which the Boeotians attacked first (Hdt. V 74), should lie near Hysiae; indeed, Oenoe and Hysiae were probably contiguous. Further, the territory of Oenoe was contiguous with that of Eleutherae (Euripides fr. 179; Strabo 375; Harpocration *s.v.*). Oenoe should therefore be located in the triangle formed by Plataea, Áyios Vasílios, and Eleutherae. As there is no room for such a ‘ deme ’ in addition to Hysiae and Erythrae between Plataea and Eleutherae on the north side of Mt. Cithaeron, it follows that we should place Oenoe south of Mt. Cithaeron and south-west of Eleutherae; for the territory of Eleutherae doubtless included the small plain south and south-east of Gyphtokastro. In other words, Oenoe should be placed where the modern Víllia stands (see FIG. 1). This area is rich in the vineyards from which Oenoe presumably took its name. The abundance of water and the adjacent fields leave no doubt that the district was inhabited in antiquity, although the remains of an ancient town are lacking (*cf.* Leake *NG* II 408, whose suggestion of ‘ Isus ’ as the ancient name is based on a corrupt reading in Strabo 405). This location places Oenoe close to the main road from Athens to Thebes via Eleutherae, so that the murder of Androgeos in the vicinity of Oenoe is intelligible (D.S. IV 60. 5).

Strabo 411–412 places Plataea on the borders of Attica and Megaris (‘ Megaris ’ being emended by many scholars to ‘ Boeotia ’, needlessly because Strabo is talking of a road to Athens and Megara). Now the part of Attica which Strabo considered to be adjacent both to the Megarid and to Plataea is not Eleutherae, which, he goes on to remark, was disputed between Attica and Boeotia. The Attic deme in question must then be placed in the vicinity of Víllia, and I believe it was the deme of Oenoe.

Oenoe was contiguous not only with Plataeis and Megaris but also with Boeotia; for Thucydides (II 18. 1, VIII 98. 2) places Oenoe on the border between Attica and

Boeotia.[40] As we have seen above, this location of Oenoe fits the invasion by Archidamus in 431 B.C. It also fits the situation in 411 B.C. For the Corinthians came by the route which we have called the Road of Towers to attack Oenoe; and the garrison of Oenoe had cut off a party of men who had withdrawn from Decelea through north Attica, in order to return to the Peloponnese. That the Peloponnesian communications with Decelea ran through north Attica is probable; for the direct route from Megara to Decelea was exposed to attacks from forces stationed at Eleusis and Athens.

The eastern frontier of the Megarid with Attica probably ran from some point between Áyios Vasílios and Víllia southwards along the ridge of Mt. Patéras; for the long valleys east of Mt. Patéras face into Attica, and their timber, still burnt for charcoal, was important to Attica. From Mt. Patéras the watershed is again the boundary until the spurs of Mt. Kérata reach the Saronic Gulf (*IG*^{2} II 204 and Kahrstedt, *loc. cit.*). Thus, when Cleombrotus marched along the Road of Towers to Áyios Vasílios and took the pass of Plataea over Mt. Cithaeron, he passed alongside the frontier of Attica (Xenophon *HG* V 4. 19: παριόντες τὴν Ἀττικήν). The most recent discussion of Oenoe's position is by W. P. Wallace in *Phoenix*, Suppl. Vol. I (1952), 80 f.

---

[40] The Boeotian town, whose territory marched with that of Oenoe, was probably Hysiae. Oenoe was thus contiguous with Aegosthena, Plataea, Hysiae, and Eleutherae. In the civil divisions of today Víllia is contiguous with Porto Yermenó, Plataea, Kriekoúki, and Mázi (see the map cited at the end of note 1 above). In *Klio* XI (1911) 436 f. Beloch identified Gyphtokastro with Panactum, Eleutherae with Myupolis, which lies east of Gyphtokastro, and Oenoe with a site to the south on the edge of the Eleusinian plain; in addition, he made the territory of Eleutherae contiguous with the Megarid. His arguments are not convincing, and his conclusions seem to be impossible; for Thucydides (V 3. 5, and II 18. 1) placed both Panactum and Oenoe on the Boeotian border. This is inconceivable if the territory of Eleutherae marched with Megaris; for, if Eleutherae was Attic, Boeotia had no access to Oenoe, and, if Eleutherae was Boeotian, Panactum was not on the border of Attica at all. The suggestion made by Leake, *NG* II 408, that the Megarian town Ereneia (Paus. I 44. 8) might be placed at Koundoúra, seems to me improbable on geographical grounds.

EXCAVATION ON THE KOFINÀ RIDGE, CHIOS

(PLATES 6–15)

FOREWORD

THE School's decision to undertake work in the island of Chios was made possible by the generosity of an anonymous donor. The work was placed under my direction, and in the first year (1952) excavations were carried out on a limited scale during three weeks of June on the Kofinà ridge in Chios town, while soundings were made on an Early Bronze Age site at Emporio near Pyrgi on the south coast of the island, where work has since continued.

The site of Kofinà was chosen because Archaic sherds on the surface raised a hope that it might be possible to uncover something of the Archaic city there. As it turned out, the Kofinà area was on the very edge of the ancient city, as of the modern town. The excavations at Kofinà were begun by myself, assisted by Mr. J. K. Anderson, and after the first ten days they were continued and completed by Mr. Anderson and Mr. R. V. Nicholls. The results of the excavations are here published in full by Mr. Anderson.*

M. S. F. HOOD

THE ANCIENT CITY OF CHIOS

The ancient city of Chios lies below the modern town;[1] but its inaccessibility does not preclude all knowledge of its shape and its buildings. The position of the ancient gravefields surrounding the city can be determined, while surface observation and limited excavations inside and on the fringes of the city have also contributed information. More can and will be learnt by further excavation and the record of chance finds.[2] The evidence of inscriptions is not of great value, as it does not afford the relevant topographical information, apart from the names of sanctuaries and buildings in Chios. Hardly any inscriptions have been found *in situ*, and many now in Chios have been carried from ancient Erythrae on the coast opposite for use as building material.[3] The shape of the modern town is deceptive. The northern arm of the harbour, formed by the mediaeval Kastro, is wholly artificial. In fact, the Kastro probably occupies the position of much of the ancient harbour, and the southern part of the modern harbour region was outside the ancient city. But within the Kastro itself Roman buildings and walls have been discovered; therefore much of its foundation earth must have accumulated in antiquity, no doubt as silt from what is now the stream Kaloplytes, which may have run into the south side of the ancient harbour.[4] What must have been distinct hills have also been levelled, notably Palaiokastro and Bounaki; while earthquakes, silting of streams, and the general subsidence of the land in this part of the Aegean since antiquity have changed the coast-line to north and south.

---

* The section on the ancient city of Chios (pp. 123–128) is by Mr. J. Boardman. The Map (FIG. 1) was compiled by Mr. Boardman, Mr. Smollett, and myself, with the active and generous help of Mr. A. P. Stephanou, Epimeletes of Antiquities, on the basis of evidence provided by Mr. Anderson's exploration of the area in the Spring of 1952 before the excavations. We are very much indebted to the kindness of Mr. A. P. Salliares, District Engineer in Chios, who most generously placed a large-scale map of Chios town at our disposal, from which the map (FIG. 1) was traced. Further acknowledgments by Mr. Boardman and Mr. Anderson will be found below, nn. 2 and 25.

[1] On the late traditions which place the ancient city above the monastery Coronata (modern Kournà), see Hunt, *BSA* XLI 31. They site the city on H. Markos hill 5 km. west of the modern town; but on its plateau top the only remains are traces of mediaeval walls, including a circuit wall, and reported tile graves, none earlier than our era. See also Zolotas in Ἀθηνᾶ XXVIII (1916), 17 ff., and the fullest account of the ancient city in Zolotas Ἱστορία τῆς Χίου A 2 2 ff., where details of early chance finds of walls and tombs in the modern town are recorded: it is not usually possible to judge the date of the finds Zolotas mentions, and of course Christian tombs do not afford evidence about the city limits; but the information he has collected is still of the greatest value.

[2] Dr. N. Kondoleon has given freely of his knowledge of the town. We are also most deeply indebted to Mr. A. P. Stephanou, Epimeletes of Antiquities, who has done invaluable work in rescuing and recording chance finds, and retrieving earlier unpublished accounts of excavations. The reports of this work have been published in local newspapers, which Mr. Stephanou has kindly made available; and from these reports come most of the unacknowledged references to tombs and finds in the town mentioned below (see note 5). Other authorities and sources are quoted in the text. Bracketed numbers refer to points on the plan.

[3] Richard Chandler, visiting the island in 1764, remarked later 'we found by the sea-side, near the town, three stones with inscriptions, which had been brought for ballast from the continent of Asia'; *cf.* Zolotas, *op. cit.* A 1 323, 2 24. This collecting of worked stones, usually for building in the Kastro and around Bounaki, vitiates Bürchner's deduction, from inscription find-places, that the agora lay between Palaiokastro and Bounaki (*RE s.v.* 'Chios' 2298).

To review first the work done within the ancient city. The earliest serious excavations were conducted on the south slopes of Palaiokastro by Fustel de Coulanges in 1845.[5] He uncovered an ashlar wall with courses of irregular height which ran over 200 m. before turning N.E. (For approximate position see (7) on Plan I, taken from map in *RE s.v.* 'Chios' 2299.) The stone he describes as that quarried from Thymianà in the island; the upper blocks were clamped. The wall had survived 3·10 m. high and was 1·18 m. thick with a socle projecting 1 m. on the south side: it has now disappeared, with Palaiokastro. He thought it had been revetted with marble plaques 0·16 m. thick, fragments of which he found, and for which the face of the wall bore a projecting ledge. The small Doric columns and half-columns which he found suggested to him a stoa opposite the harbour. Aeneas Tacticus describes part of Chios town in the course of a monitory account of its betrayal.[6] He speaks of the dockyard, its adjoining stoa, and the tower next to it in which the magistrates lived; and this complex may well lie in the vicinity of the Palaiokastro excavations. Strabo says that there was a naval station (ναύσταθμος) for eighty ships there.[7] It seems likely that the ancient market and harbour area was called Emporion, as it was in later times. Behind Palaiokastro on the Kofinà ridge the recent excavations, which are reported in the following pages, suggested that the area was on the edge of the ancient city, with scattered occupation down to the end of the Hellenistic period, followed only by graves. S.W. of this at H. Nikolaos a number of inscriptions and architectural members indicate a shrine in the vicinity,[8] and a stone frieze of masks suggests the theatre,[9] though nearby tombs show that the church itself must be on the edge of or outside the ancient city. Between the church and Bounaki, just west of the French Convent School, the digging of foundations disturbed levels with pottery of various periods, and fourth century sherds can be picked up near by. West of Bounaki, now a public garden, by the church of H. Iakobos, Kourouniotes recovered red figure and archaic Chiot 'Naucratite' pottery, no doubt from an occupation site, as well as a Roman or Byzantine mosaic.[10] Earlier digging there had

---

[4] Zolotas, *op. cit.* A 2 10 f.

[5] *Archives des missions scientifiques et littéraires* V (1856), 492–5. Earlier excavation for building stone on Bounaki and Palaiokastro by Xanthakes is recorded in the papers of Dr. G. K. Pittaoules, part of which have been published by Stephanou in Τὰ Νέα τοῦ Βροντάδου.

[6] XI 3. A traitor magistrate had the harbour boom overhauled and the roofs of the dockyard, stoa and tower repaired to provide an excuse for convenient ladders. Guards were reduced as an economy measure and hunting nets and sails with ropes hung over the walls to assist the attackers. Hunter (ΑΙΝΕΙΟΥ ΠΟΛΙΟΡΚΗΤΙΚΑ 136) refers the event to the revolt from Athens in 357, but there is no reason to believe that this involved revolution in the city rather than a simple declaration of alliance against Athens. It would better suit some pro-Athenian intrigue during the Peloponnesian War after 412, when the city was Spartan but the Athenians were stationed at Delphinion with a fleet only 13 km. away, or even earlier at the time of the plot recorded by Thucydides (VIII 24, 6). Hunter adduces the dating of this event to 357 as a *terminus post quem* for Aeneas' work.

[7] XIV 1, 35. See also Lehmann-Hartleben, *Die antiken Hafenanlagen* 82, 107 f., who found no certain evidence in literary sources that the harbour was enclosed by the walls, and Robert, *REG* XLII 38. Herod the Great had restored in Chios at his own expense a stoa which had been destroyed in the Mithridatic War (Josephus, *AJ* XVI 2, 2); on a tradition that he deepened and widened the harbour, see Zolotas, *op. cit.* A 2 22.

[8] Kondoleon will publish this material, and kindly allows me to mention it here. Nearby finds seemed to Zolotas (*op. cit.* A 2 14) to indicate a fountain house.

[9] The Chians were assembled there before deportation by Mithridates (Appian, *Mithr.* 47).

[10] *BCH* XLIV 412.

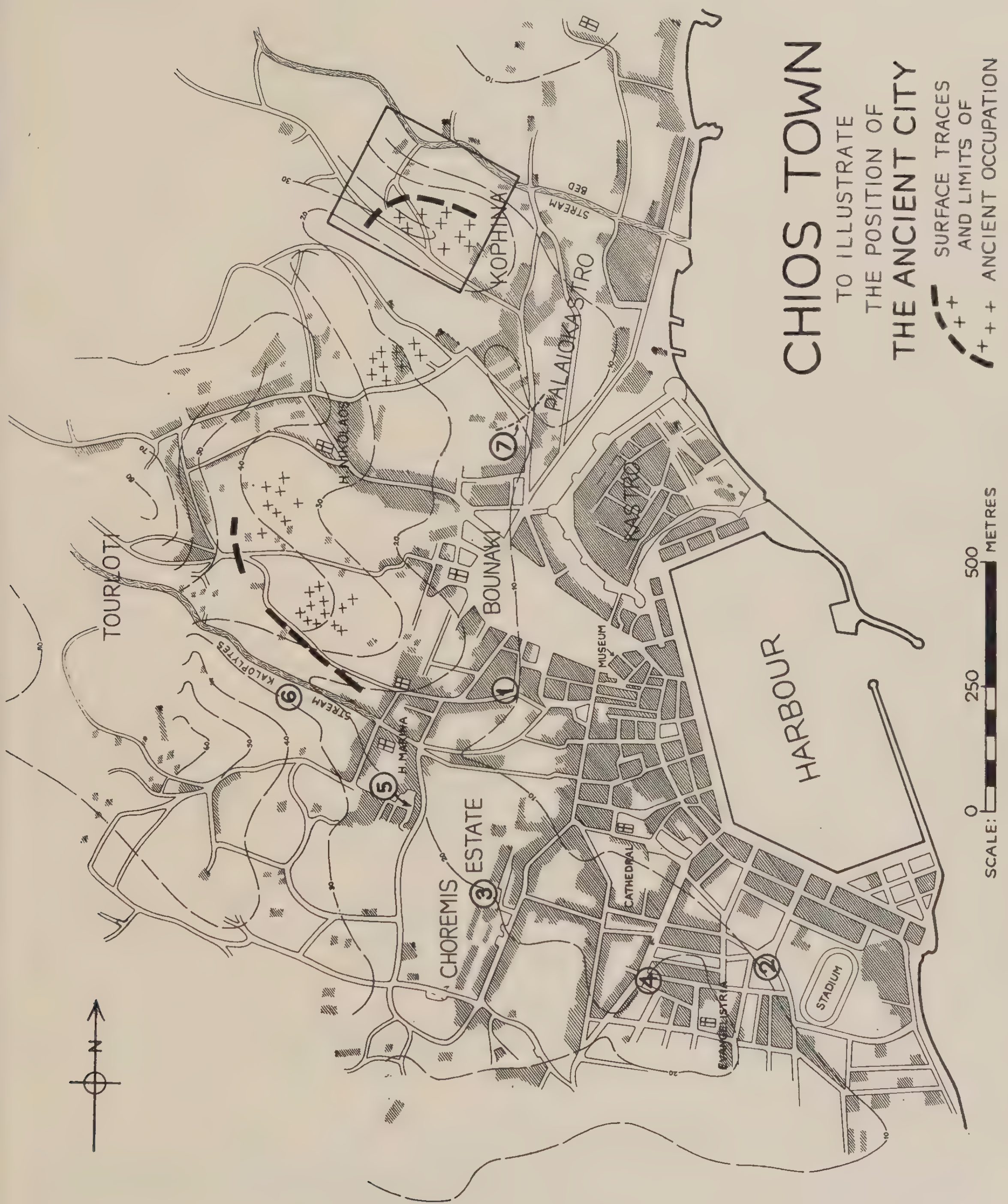

CHIOS TOWN
TO ILLUSTRATE
THE POSITION OF
THE ANCIENT CITY
SURFACE TRACES
AND LIMITS OF
ANCIENT OCCUPATION
KOPHINA
STREAM BED
PALAIOKASTRO
KASTRO
H. NIKOLAOS
BOUNAKI
TOURLOTI
KALOPLYTES
STREAM
H. MARINA
MUSEUM
CHOREMIS
ESTATE
CATHEDRAL
EVANGELISTRIA
STADIUM
HARBOUR
SCALE: 0 250 500 METRES
N
1
2
3
4
5
6
7
10
20
30
40
50
60
70
80

Fig. 1.

revealed walls and two lidded monolith sarcophagi [11] containing bones, glass vases, and fragmentary gold leaves from crowns: the burials were Roman or Christian, as was a small grave relief found near by. A little to the north-east the place-name Serapeio and an inscription to Sarapis found in the town suggest the site of a Sarapeion.[12] At Taxiarches (1) Stephanou in 1953 cleared a votive deposit from a Demeter sanctuary including Hellenistic and earlier pottery and figurines. Chiot *kernoi* and an inscribed loom-weight identify the deity.[13]

For the limits of the city on the north there is the evidence of the recent Kofinà excavations. The concentration of sherds on the surface in this area and to the south above the stream-bed Kaloplytes, S.W. of Bounaki, ends on the well-defined lines indicated on the plan. These lines correspond to boundaries for the ancient city by nature not unsuitable, and beyond them begin the cemeteries dealt with below. No certain trace of the city walls has been recovered so far. The size and construction of the wall found on Palaiokastro by Fustel de Coulanges show that it can be no part of a city wall. Zolotas [14] records the finding of similar stretches of wall at the northernmost part of the present Bounaki, at H. Nikolaos running towards Tourlotì, and in the southern part of the town; they may be peribolos walls, but hardly the walls surrounding the city. Walls found south of Bounaki are both stronger and better placed, but their description and lack of any accompanying evidence which may have been found leave their date and purpose uncertain. Without this evidence it is difficult to accept Zolotas' reconstruction of the city wall line, and the records of buildings and graves on which the present account is based seem probably more reliable than that of isolated stretches of unidentifiable wall. Vitruvius [15] implies that the sea ran at the foot of the walls. In 426–5 a suspicious Athens made the Chians pull down their ' new wall '; [16] what this replaced, strengthened, or preceded we cannot guess. Pliny [17] records an anecdote about Cicero as a tourist before the walls saying that he would have marvelled more had they been made of Tiburtine stone—a remark in which no great subtlety should be read. An inscription tells us that Attalus I had apportioned revenue for the building of the walls.[18]

The immediately encircling groups of graves (the remoter cemeteries are ignored in this account) confirm and complete our knowledge of the general outlines of the ancient city. In the S.E. at (2) numerous tile graves appear in the banks at the roadside, and associated pottery dates back to the fourth century. To the north and east in the Mezarià [19] area of the old Turkish cemetery, Hellenistic and Roman graves were disturbed in building operations.[20] To the west again at Atsíki similar graves have been found in the same way. At (4) the lid of a plain stone sarcophagus of the Christian era still lies beside the road, and at Hypapanti (3) in 1952 four tombs yielded a stone alabastron, a bronze mirror, and other metal and clay offerings. Even while this article is being written, further tombs have been discovered in the course of building operations and cleared by Stephanou immediately south of the Cathedral; dating from the Hellenistic period and later, they have yielded gold jewellery, fragments of fine gold

---

[11] One such now serves as a water tank in Bounaki gardens.

[12] There was also a church S. Giorgio di Serapione, *cf.* Zolotas, *op. cit.* A 1 381 f., B 74.

[13] *Cf.* ' Archaeology in Greece, 1953 ' in *JHS* LXXIV. Stephanou publishes in Χιακὸς Λαός a fragmentary inscription from the town bearing part of a dedication to Demeter.

[14] *Op. cit.* A 2 12–17 on the walls and finds in the town: he notes different types of stone employed and infers several periods and perhaps different circuits.

[15] X 16, 9.

[16] Thuc. IV 51. Its earlier condition may be as for the rest of Ionia after the Peace of Callias, *cf.* Wade-Gery, *Athenian Studies Presented to W. S. Ferguson* 141.

[17] *NH* XXXVI 6, 46.

[18] Ἀθηνᾶ XX 167, 183, Zolotas, *op. cit.* A 1 388, B 163 (where he suggests that the walls may have suffered from the same earthquake that destroyed part of those of Rhodes as well as the Colossus there). See also Magie, *Roman Rule in Asia Minor II* 891, n. 97.

[19] *Cf.* Bürchner's plan in *RE s.v.* ' Chios ' and the plan after p. 620 in Zolotas, *op. cit.* A 2.

[20] Zolotas, *op. cit.* A 2 25. On other tombs about Chios town, see Kanellakes in Πιερία-Αἰγαῖον (1896), 237 ff.

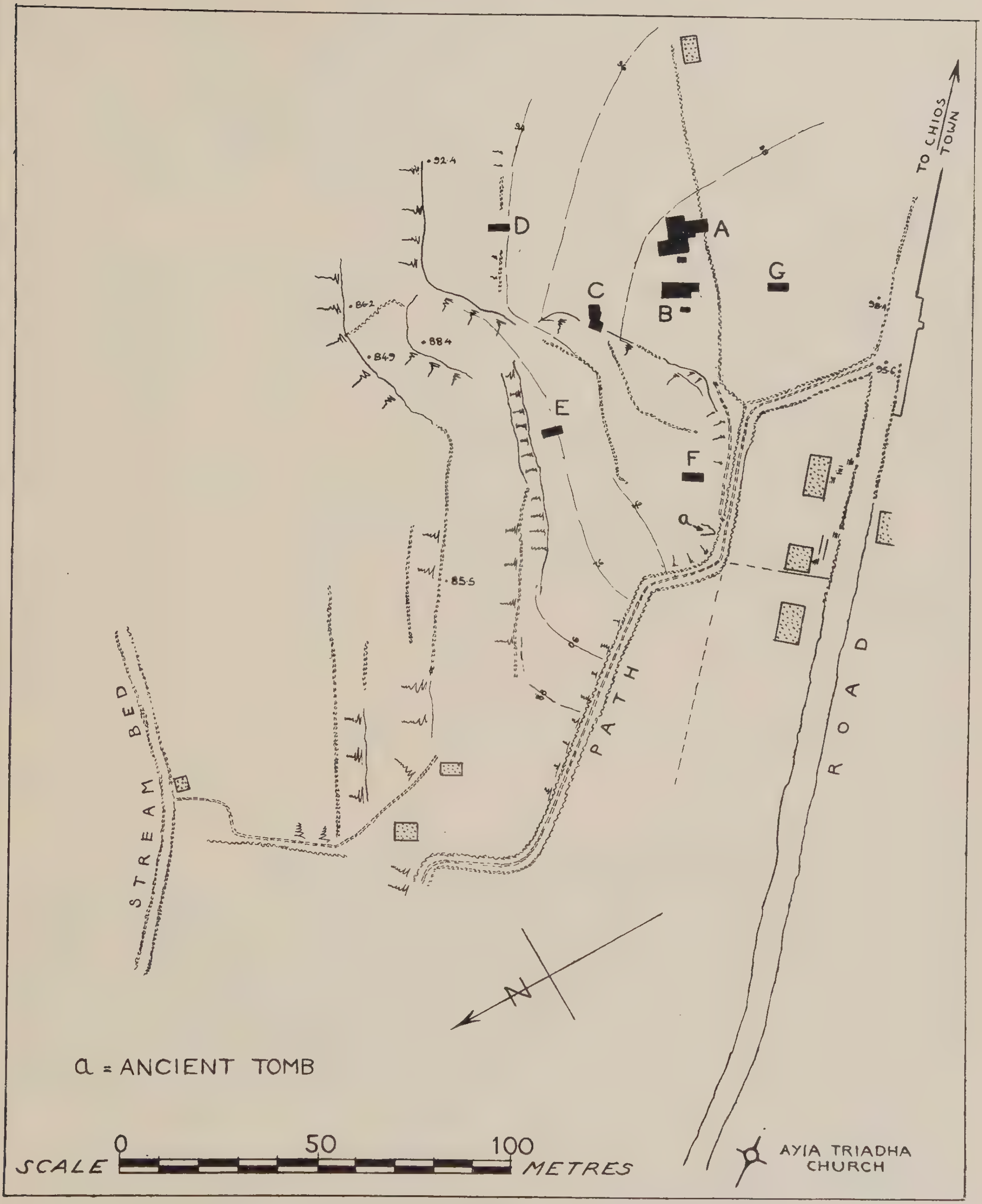

TO CHIOS TOWN
92·4
D
A
G
C
B
86·2
88·4
84·9
98·1
95·6
E
F
a
85·5
PATH
ROAD
STREAM BED
N
a = ANCIENT TOMB
SCALE
0
50
100
METRES
AYIA TRIADHA CHURCH

Fig. 2.—Enlargement of Region Enclosed in Rectangle in Fig. 1.

wire mesh, a bronze mirror wrapped in cloth, some of which adheres, and pottery. Beyond the Khoremi estate, at Rizári (5), Kondoleon in 1952 excavated graves and recovered pottery of the subgeometric and archaic periods, the first of this date to come to light so near the ancient city.[21] To the N.W. at (6) what may have been a rock-cut chamber tomb is visible above the south bank of the stream-bed. Further N.W. on Tourlotì hill Fustel de Coulanges [22] noted rock-cut tombs and ancient walls, and Kourouniotes clay sarcophagus fragments.[23] The graves by H. Nikolaos [24] and at Kofinà complete our knowledge of the cemeteries on the immediate periphery of Chios. It is noteworthy that the earliest and richest of them lay to the south of the city.

The boundary of the ancient city would then seem to run, at the north, from the sea at a point little north of the Kastro, no doubt on or above the south bank of the stream which emerges there, west across and probably embracing most of the Kofinà ridge, S.W. to the slopes facing Tourlotì hill, S.E. thence above the stream-bed Kaloplytes, and back to the sea somewhere in the southern half of the modern harbour. The ancient harbour is in part occupied now by the Kastro, and the sea no doubt once ran near the foot of Palaiokastro and Bounaki. Some important buildings in the town can be approximately located. Of contractions and expansions of the city limits in antiquity nothing can be even guessed at this stage, and of the outlines sketched here all we can say is that they seem to be of pre-Byzantine times, in which cemeteries would normally lie outside and public buildings inside the main city area. There is no ancient record of the city possessing an acropolis in the usual sense of the word.[24a] Its limits seem to have followed naturally suitable features embracing two or three low hills; but it is noteworthy that on the continuation of the Kofinà ridge to the west a fragment of a grave relief has been picked up, and the hill seems otherwise devoid of ancient remains and pottery, though it would seem to demand inclusion in any circuit. It must remain uncertain at what date Chios, whose wealth lay in her ships and fields, first became a walled and fortified city, and even whether the short-lived 'new wall' mentioned by Thucydides may not have been also her first. Further observation of chance finds may help to complete the picture, and ensure that the evidence preserved of earlier sporadic digging is not wasted.

John Boardman

Excavations on the Ridge of Kofinà in Chios

The small coastal plain in which the city of Chios is built is closed on the north by a low ridge, or rather spur of the main hills to the west (PLAN 1, FIG. 1). This ridge extends about half a mile from east to west; at its west, or inland, end is a small round hill about two hundred feet high, on top of which is a modern church or chapel. This hill is planted with olives; not a single ancient sherd is to be found among the terrace walls which buttress its sides. At its east end, which is covered with modern houses, the ridge falls away to the sea, a short way north of the Kastro, or mediaeval walled town of Chios. It is rather less than a hundred feet high for most of its length; the north and south sides are steep, almost precipitous, and below them are the stony beds of winter torrents. The top is a narrow table-land or plateau, extending for about a hundred yards north and south and five hundred east and west. Along the southern edge of this plateau runs a modern road, leading north-westwards out of Chios town; upon the level ground north of the road are several small detached houses and a church of the Holy Trinity, which gives the district its name of Ἅγια Τριάδα. Apart from these buildings the ground is fairly open, though planted with almond, olive, and fig trees where the depth of the soil permits. (On the top of the eastern part the native limestone is covered by only some eighteen inches of soil, though there are many pits and trenches cut into the soft rock.) The eastern quarter of the plateau is separated from the rest by a very slight depression or saddle; east of this, Archaic and Classical sherds had been found on the surface at different times by Dr. P. Argenti and Mr. J. M. Cook; west of the saddle the surface pottery is mostly Hellenistic and Roman, and the western half of the ridge, including the small hill already mentioned, is entirely without ancient remains.

---

[21] *JHS* LXXIII 124, *BCH* LXXVII 232.

[22] *Op. cit.* 492.

[23] *ADelt* I 67: they are not decorated: but *cf.* the unique relief fragment *ibid.* 71, fig. 5; and Hunt, *op. cit.* 33, records the report of a painted example found south of the town.

[24] The tombs reported by Zolotas (*op. cit.* A 2 14 f., 24 f.) seem to be late, but Stephanou has located several Hellenistic graves immediately east of the church.

[24a] Τὴν ἀκρόπολιν τῶν Χίων taken by Kratesippides (D.S. XIII 65, 3) refers to Chios city and not to a 'castle hill' in it.

This seems to be the only place in the neighbourhood of Chios town where Archaic pottery is to be found on the surface. It was therefore resolved to investigate the ridge, although hopes of finding any very spectacular early remains were slight, as the soil was shallow and the surface covered with sherds of all periods, Hellenistic, Roman, mediaeval, and modern. Moreover, it was maintained by the local peasants, who had discovered graves while digging in the fields, that the area had been used as a cemetery by the Genoese. (In this they were wrong; the cemetery proved to be about a millennium and a half earlier.) But this area seemed to offer the only hope of learning anything about the earliest city of Chios.[25]

Most of the digging was done in the comparatively small area at the east end of the plateau where archaic sherds were numerous. This is divided into two by a march wall between two farms, which runs east and west. A trial trench (G on Plan II: FIG. 2) to the south of the wall found bedrock under only eighteen inches of confused soil containing fragments of pottery of all periods from the sixth century B.C.[26] to the present.

Trench A (FIG. 4).

North of the wall we were more fortunate. About five metres north of the wall and in the centre of the area chosen for excavation we found, under a layer of disturbed earth varying in depth from a quarter to half a metre, a deposit of red earth, probably decayed brickwork,

---

[25] Miss J. E. Dawson, Mr. and Mrs. W. J. M. Synge, Mr. D. Smollett, and Mr. David Nicolson helped in the work of excavation. The plans and sections of trenches were drawn by Mr. Nicholls. Most of the drawings of pottery from the graves are by Miss Dawson. Miss E. A. Petty drew the stamps from loom-weights and the fragments of relief pithos shown in FIG. 14, and made fair copies of the plans and sections. The rest of the drawings (by far the greater number) are by Miss V. M. Rogers, to whose skill and patience I am much indebted. My obligations to Mr. Hood and Mr. Nicholls are far greater than I can say; I have acknowledged a few of their suggestions in the proper places; many more I have adopted without acknowledgment.

Of other scholars, I am most indebted to Mr. J. M. Cook and Miss Sylvia Benton. Without the knowledge gained by watching them at work I would have been quite unable to deal with this material.

That I am greatly obliged to the staff of the American Excavations in the Athenian Agora goes without saying; my chief regret is that I was unable to make more use of the learning and experience which their generosity places at the disposal of all enquirers. Miss Virginia Grace's kindness in visiting Chios to examine the fragments of amphorae found has been acknowledged in the proper places.

Mr. Kondoleon, Ephor of Antiquities, and Mr. A. Stephanou, Assistant Master at Chios Gymnasium and Curator of the Museum, were kindness itself; besides assisting in innumerable ways before, during and after the excavation they allowed us to turn the whole Museum into a workshop: we would otherwise have been unable to deal with the mass of material found.

My personal expenses, as far as they were not covered by the Macmillan Studentship which I held at the time, were met by grants from the Oxford Craven Committee and from Christ Church, Oxford, for which I am most grateful.

This paper was written before the publication of the Hellenistic material from the American excavations at Tarsus, and I have not had an opportunity of comparing the Chios and Tarsus finds in detail. But the close resemblance between the 'West Slope' ware from the two sites is obvious, and I believe that the absolute chronology which I have suggested for our finds should be revised to agree with that established (by coins) at Tarsus. Probably my dates are rather too high, and the three deposits from the Well cover the whole of the third century B.C. instead of only the first half of it.

[26] All dates are B.C. unless they are expressly said to be A.D.

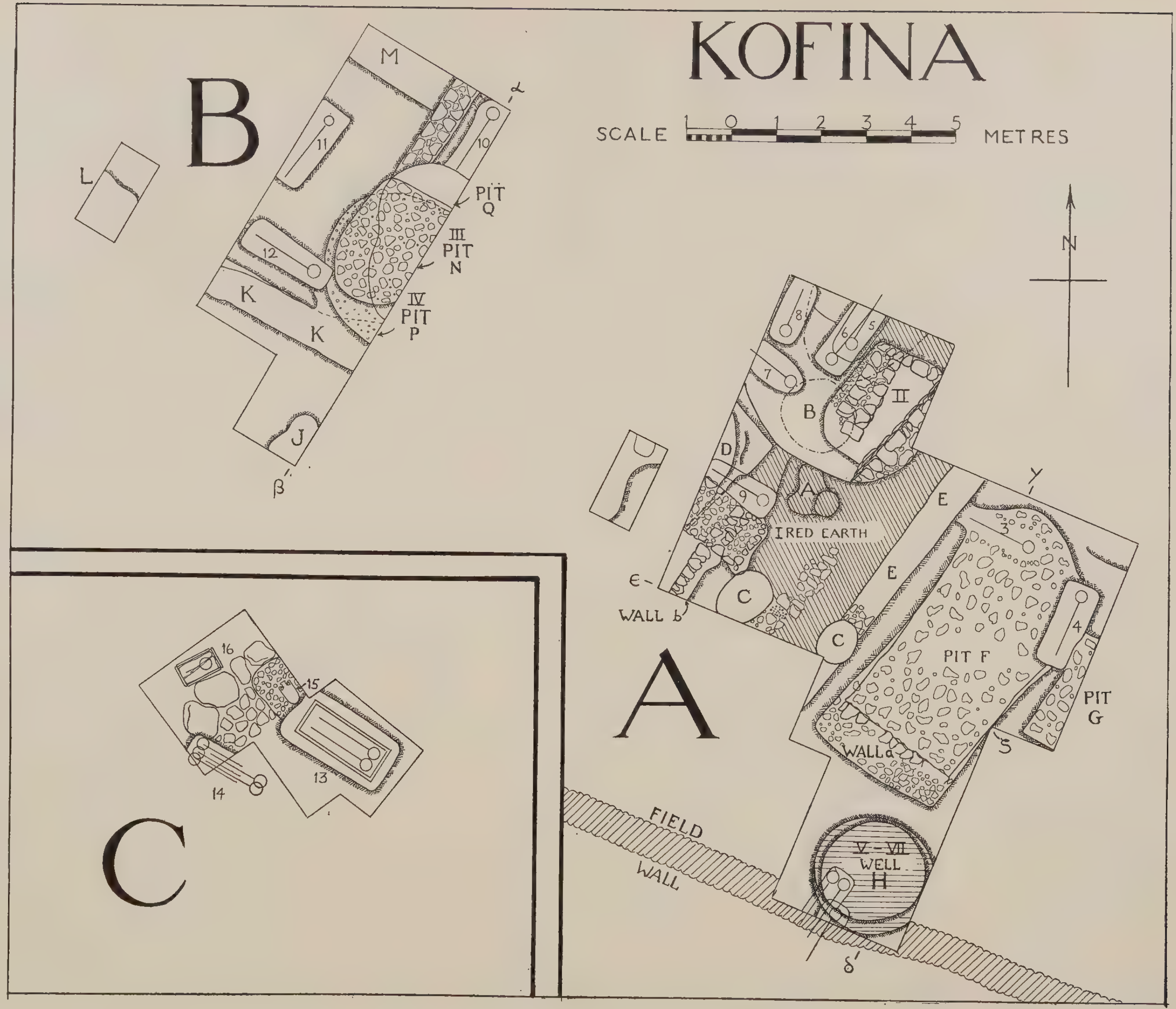

KOFINA
SCALE
1 0 1 2 3 4 5
METRES
N
A
B
C
PIT F
PIT G
V–VII WELL H
RED EARTH
WALL a
WALL b
FIELD WALL
E
E
C
C
A
B
D
II
III PIT N
IV PIT P
PIT Q
M
K
K
J
L
α
β
γ
δ
ε
ζ
3
4
5
6
7
8
9
10
11
12
13
14
15
16

Fig. 3.—Detailed Plan of Kofinà.

about half a metre deep, resting on the bedrock; this red earth was rich in pottery of the late seventh century (nos. 1–43 below). It was not, however, deep enough to have escaped later disturbance and was limited in extent, the extreme dimensions of the deposit which we uncovered being about five metres by three and a half. It sealed a small shallow pit (A on Plan III: FIG. 3) whose contents were purely archaic; they included one scrap of Corinthian pottery painted in the Transitional style (no. 4). To the north of the red earth were foundations of two walls made of large stones, running roughly north and south: the eastern one presented to the west a face two courses high in a rough polygonal style; it backed against the red earth, and sherds found between the stones suggest that it was built during the late seventh century. The western wall was lower and less well built: it seemed to belong to the sixth century, as did the potsherds (nos. 44–50) found in the space between the walls. They were more sheltered and therefore rather more complete than those from the red earth.

The whole area had been much disturbed by Late Hellenistic graves (Graves 5–8) and by a pit dug in modern times, perhaps for a fruit tree (B).

Over the southern part of the red earth a rather flimsy wall had been built in or after the Antonine period (the fragment of a lamp, no. 359, was found under it) and there were two more modern pits (C, C). The shallowness of the soil to the south gave little hope of profit in this direction. West of the red earth was a solid structure made of large stones presenting a rough face four courses high on the north side; this did not continue westwards, as was proved by a small trench opened to the west, which afforded nothing but two feet of confused earth containing Roman and Hellenistic sherds. Between the stones of this structure there were very few sherds and none that could be certainly dated; it was probably built, as the similar structure to the east of the red earth seems to have been, in the late archaic period. Their purpose is uncertain; they are short and not continuous; perhaps they were intended to support oil presses or other heavy machinery.

North of and partly cut by this stony foundation was a large pit (D on Plan III: FIG. 3) full of dark earth; none of the sherds from it (and there were very few) were necessarily later than the Archaic period. A Late Hellenistic grave (Tomb 9) had been made against the north face of the stony foundation.

On the east side the red earth was bounded by a narrow cutting in the rock (E on Plan III: FIG. 3), probably a foundation trench which had been robbed in the Early Hellenistic period; it contained a few Early Hellenistic sherds and some scattered stones at its south end.

Separated from this by a narrow tongue of rock was a large rectangular pit (F on Plan III: FIG. 3), measuring 5·5 m. north and south by 3·25 m. east and west. The south end was cut to a depth of 0·75 m. in the rock and filled by a substructure of rough stones, four to five courses high and about a metre broad from north to south. It nowhere rose above the level of the bedrock around the pit in which it stood; on the north side it presented a face in a rough polygonal style. North of this the floor of the pit sloped regularly upward like that of a swimming-bath, the north end being at the same level as the surrounding rock. The pit had been filled in with a great quantity of small loose stones; the pottery found among them (nos. 57–113) suggests that a pile of material collected during the Late Archaic period was finally shovelled into position at the end of the fifth century. Two Late Hellenistic graves (Tombs 3 and 4) had been dug into the north end of the stony pit. Farther east was a second smaller stony pit (G on Plan III: FIG. 3), which we did not excavate fully: it seemed to have been filled in at the same time as the first.

I cannot imagine the purpose of these pits and the substructure at the south end of the big one.

Less than a metre to the south of the south-east corner of the larger stony pit was a circular shaft (H on Plan III: FIG. 3), two and a half metres in diameter and four and a half deep. Perhaps it was intended to be a well, but it would appear from an examination of wells on either

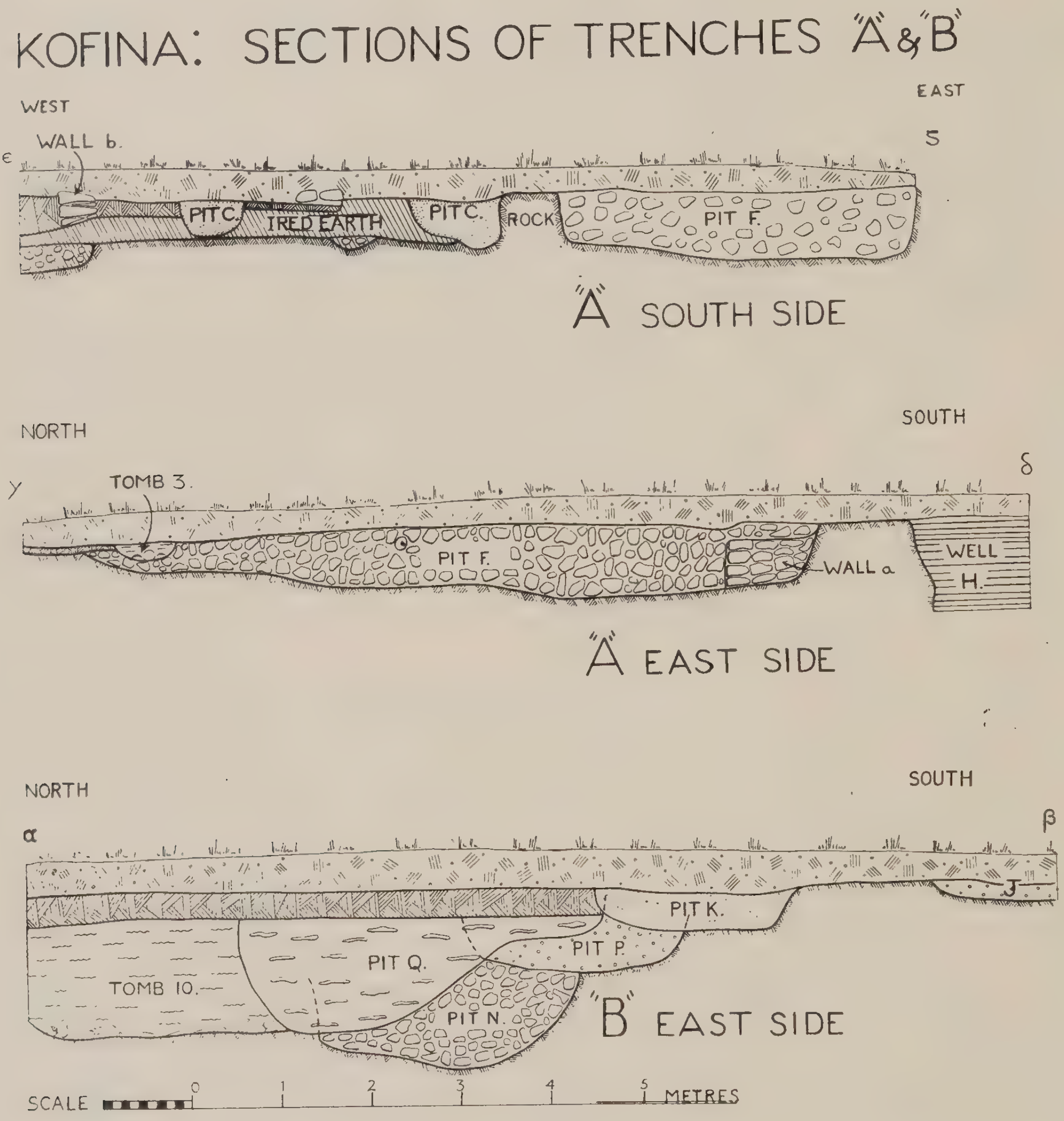

KOFINA: SECTIONS OF TRENCHES "A" & "B"
WEST
EAST
WALL b.
ε
ζ
PIT C.
RED EARTH
PIT C.
ROCK
PIT F.
"A" SOUTH SIDE
NORTH
SOUTH
γ
δ
TOMB 3.
PIT F.
WALL a
WELL H.
"A" EAST SIDE
NORTH
SOUTH
α
β
PIT K.
PIT P.
PIT Q.
TOMB 10.
PIT N.
J
"B" EAST SIDE
SCALE
0
1
2
3
4
5 METRES

FIG. 4.

slope of the ridge that the diggers must have sunk their shaft for at least another hundred feet before reaching water. A cistern should have been lined with plaster; moreover, the shaft shows no sign of widening. It is very unlikely that it was dug as a rubbish pit. I have called it 'the well'. Rubbish began to accumulate in the bottom about 325 B.C., and the well was finally filled in about the middle of the third century. Its contents are stratified in three layers (nos. 114–37, 138–87, and 188–313). Two Late Hellenistic graves (Tombs 1 and 2) were later dug above the well.

Trench B (FIG. 4).

A second large trench was dug eight metres west of the western edge of the trench just described. At the south end bedrock was found under about half a metre of soil; a shallow pit (J on Plan III: FIG. 3) in the south-east corner contained nothing of interest. Two and a half metres from the south end of the pit was a cutting in the rock (K on Plan III: FIG. 3) running east and west; this had been either dug or re-opened in the Middle Ages, as it contained green-glazed sherds with *sgraffito* decoration. A small trench (L on Plan III: FIG. 3) opened farther west showed that it did not extend very far (the line shown in the plan of this small trench represents a shallow unevenness in the rock). North of this cutting, and separated from it by a narrow tongue of rock, was a Late Hellenistic grave (Grave 12). Directly north of this the rock lay under about half a metre of confused soil; at the north end of the trench was a shallow cutting (M on Plan III: FIG. 3) containing Early Hellenistic sherds and meeting at right angles a short stretch of foundation, under which another Early Hellenistic sherd was found. In the area enclosed by the foundation and the cutting was a Late Hellenistic tomb (Grave 11).

On the eastern side of the trench were three superimposed pits (see section 3 and plan). The lowest (N) was filled with large stones and contained pottery of the late Archaic period (nos. 51–6). Above the southern end of this was a shallow circular pit (P), full of small stones and containing a few Late Hellenistic sherds; finally, a large deep pit (Q) had been cut into both in modern times. (It is not quite clear whether the southern extension of Q, visible on the section, is not in fact a fourth still later pit.)

In the extreme north-east corner of the trench was another Late Hellenistic grave (Grave 10).

Trench C.

This trench, twenty metres north of Trench B, was cut through the bank, which here rises above the eastern side of the saddle, in order to determine whether any sort of defensive work had been raised along this line in antiquity. No wall was found, but there were a number of loose stones which might have been the backing for a terrace (their representation in the plan is slightly misleading—those in the fill of Grave 15 were no smaller than those outside; they are shown smaller in order to make the limits of the grave clear). The stones were quite loose and did not present any face; no more stones were visible in the cutting of the south-west side of the trench. The trench contained four graves of the early Imperial period (Graves 13–16).

Further trial trenches were opened to the north-west, north-east, and west. The soil was found to be deeper (over two metres), but the scraps of pottery (including a fine collection of bowls from Turkish *chibouks*) showed that it had accumulated in modern times. One more grave (Grave 17) was found about fifty metres north-west of Trench C.

Study of the pottery suggests that occupation of the area began about 625 B.C. and continued till about 250 B.C. It was never dense, and from the quality of the objects found (especially the great quantities of wine amphorae and coarse basins), was mainly either domestic or industrial. One object from the well (the tile no. 371) certainly came from a shrine, and several others (the *kernoi* nos. 129–30, the white-slipped drinking cups nos. 133–4, 168–73, 224–6, the miniature lamps nos. 137, 180, 268–9) may have had a religious use, either in ritual or as votives. But the rubbish in the well may have been collected from a wide area—perhaps not even from Kofinà ridge. The mere fact that the area was later used as a cemetery tells against its ever having been an important quarter of the town or the site of an important temple.

From about 250 B.C. till after 100 B.C. the area seems to have been vacant, though there must have been houses near by, as a good deal of pottery (fragments of ' Megarian ' bowls, etc.) was dropped on the surface. Later (during the first century B.C.) it became a cemetery, and probably a road ran out of the city north-westwards along the ridge, as it does to-day, though no trace of the ancient road was found during the excavation.

A catalogue of the finds follows. This is continuously numbered, but divided into groups according to the contexts in which the various objects were found. Since the whole interest of the excavation lies in this series of groups, only a few selected sections of trenches, showing the relation of these groups to each other, have been published. FIGS. 5–10, 12–23, pp. 173–182.

List of Deposits

I. Red Earth in Trench A, nos. 1–43.
II. Deposit between the Two Walls at North End of Trench A, nos. 44–50.
III. Lower Stony Pit (N) in Trench B, nos. 51–6.
IV. Large Stony Pit (F) in Trench A, nos. 57–113.
V. Lowest Level of Well (H) in Trench A, nos. 114–37.
VI. Second Level of Well (H) in Trench A, nos. 138–88.
VII. Top of Well (H) in Trench A, nos. 189–313.
VIII. The Grave Groups, nos. 314–54.
IX. Later Disturbed Levels, nos. 355–74.

I. THE RED EARTH DEPOSIT IN TRENCH A

Although occasional Archaic sherds were scattered over the whole eastern part of the area of excavation, the only heavy concentration was in the thick patch of red earth in trench A. Even here (the depth of soil being slight) later grave-digging and building and agriculture had disturbed the Archaic deposit, which survived pure only where the unevenness of the underlying rock afforded some protection, and in the small pit in the middle of the trench. A description of the pottery from this area follows.

Chiot Fine Ware

1. Fragments of ' Naucratite ' chalices were exceedingly numerous. But most of them were decorated only with simple ' sub-geometric ' patterns, often rather carelessly executed. They come from ordinary household drinking-cups. The technique is the familiar one (white slip of good quality inside and out; insides completely glazed, the glaze being somewhat streaky and varying in colour from brown to black; various patterns painted on the slip outside). Decoration of the outsides of these chalices seems to have been mainly in the handle zone. Typical fragments are shown in PLATE 6.

2. PLATE 6. The only figured piece of a chalice. Light-brown clay. White slip inside and out. Inside black, with two horizontal lines and part of a lotus in white paint. Outside, on the larger fragment, at the rim, black squares alternating with dots, then a battlement meander between fine lines, then part of the shoulder of a large animal, perhaps a bull. On the smaller fragment a goat's head. Outline painting without incision. For similar fragments from Miss Lamb's excavation at Kato Phana, compare *BSA* XXXV, pl. 37.

3. PLATE 6. Two pieces of a large oinochoe.

Light-brown clay. White slip on outside. Black glaze. (*a*) comes from the neck: guilloche pattern. (*b*) is from the shoulder: black tongues; wing and part of body of bird. Details incised.

CORINTHIAN

4. PLATE 6. Fragment from a small closed vase, probably an oinochoe.
Lion's head and forequarters. Dot and circle rosette. Good work of the Transitional period.

RHODIAN

5. PLATE 6. Two fragments of a shallow saucer. D. *c.* 0·20 m.
Wide out-turned rim. Low broad ring foot. Red-brown clay, unslipped. Red glaze. There are three bands round the outside of the body, upon the uppermost of which is painted a narrow white band. The outside of the foot ring is red. Inside, meander round rim, broad reserved band with tongue-and-lotus pattern (parts of four tongues and tip of one lotus petal preserved), narrow zone filled with pomegranates, small rays at centre. The bands dividing the various zones of decoration consist of narrow white lines painted on broad red ones.

6. PLATE 6. Fragment of rim of ' fruit dish '.
Light-brown clay, unslipped. Black glaze. For a complete vase of this shape with this rim pattern, see *Clara Rhodos* VI, pl. 3 (nos. 4 and 9 from Tomb 2 in the Papatislures cemetery).

7. Not illustrated. Fragment of rim of fruit dish.
Red-brown clay, unslipped. Inside, narrow red and white bands upon black glaze.

8. PLATE 6. Part of floor of plate.
Red-brown clay. Light-brown slip inside and out. Outside, black horizontal bands. Inside, chain of lotuses and buds between polychrome (red on black) bands. The central petal of the lotus is red and there are added red spots on the cup of the lotus and the buds.

SAMIAN(?)

9. PLATE 7 *c*. Part of rim and body of a large drinking-cup. D. *c.* 0·15.
Light-brown clay. Red-brown glaze. Inside completely glazed. Miss Lamb [27] publishes a similar piece from Kato Phana and suggests that these bowls, which are certainly not Chian, may be Samian.[28]

No other imported pieces were found in the red earth. The great number of ' Naucratite ' sherds found and the rarity of other fabrics furnish additional proof that Chios was the home of this ware and that the Chiots were well pleased with it.

The Corinthian and Rhodian fragments fix the date of the deposit in the Early Corinthian period.

The remaining pieces shown on PLATE 6 were found scattered about the site, and some are certainly later in date. But since their contexts are of no chronological significance they may be described here for the sake of convenience.

10. PLATE 6. Fragment of rim of small shallow bowl. D. *c.* 0·12.
Light-brown clay. White slip inside and out. The rim covered with black glaze upon which are painted small white rectangles.

11. PLATE 6. Fragment of chalice rim.
Light-brown clay. White slip inside and out. Inside leaf and lotus (part of one petal only preserved) painted in red and white upon black glaze. Outside, plain except for a row of small black rectangles between two fine black lines just below the rim. Mid-sixth century.

12. PLATE 6. Fragments from the shoulders of oinochoai.
(*a*) is typical ' Naucratite ', (*b*) and (*c*) are East Greek, with white slip on light-brown clay; they may have been made in Chios, but I am not certain.

13. PLATE 6. Fragment of shoulder of small oinochoe.
Light-brown clay. White slip. Meander round neck. Shoulder black with reserved panel containing lion's head and ' cogwheel ' filling ornament. Details incised. Lions drawn in a very similar style were found at Naucratis.[29]

14. PLATE 6. Fragment of lid. D. *c.* 0·16.
Light-brown clay. Thin white slip on outside. Painted scale pattern with large black dots. Clazomenian. Sixth century.

15. PLATE 6. Fragment of rim of bird bowl.
A surface find, the only piece of a bird bowl from the whole excavation. Clearly the Chiots preferred their own chalices.

16. PLATE 6. Lower part of shallow saucer.
Flat foot, gently sloping sides. Red clay, unslipped. Inside, three concentric circles, white, red, and white, in centre of floor; then a ring of white blobs, each marked with a red X, then concentric circles, white, red, and white. Outside plain. Probably not Chian. Sixth century (?).

---

[27] *BSA* XXXV 161, fig. 12, 8.

[28] *See* Technau, *AM* LIV 14, and Beilage 5, nos. 2, 7, and 6.

[29] E.g. *JHS* XLIV, pl. 12, nos. 3 and 4.

LARGE VASES FROM THE RED EARTH

The red earth deposit contained numerous fragments of large vases made of a light-brown gritty clay and covered on the outside with a thick white slip of good quality, upon which were painted various designs in brown, black, and dark red. Although many sherds were found, very few of them joined, and it was quite impossible to make up any complete vases. But with the help of Mr. Kondoleon, who kindly permitted me to examine the finds from the excavations which he was conducting at the same time as ours, I was able to determine that the fragments came from vessels of the following shapes.

Amphorae.

17. FIG. 5, PLATE 7 *a*. Fragment of upper part of neck with spring of handle. D. of mouth *c.* 0·14.
Red-brown clay with a few specks of mica. Outside covered with thick white slip. Inside reserved. The decoration is dark.

18. FIG. 5, PLATE 7 *a*. Fragment of lip. D. *c.* 0·12.
Grey-brown clay, reddish in break. Inside of neck reserved. Outside covered with thick white slip. Decoration black.

19. PLATE 7 *a*. Similar to no. 17.

20. FIG. 9. Amphora foot.
Grey clay with brown patches in break. The grey colour is perhaps the result of accidental burning. Worn white slip.

21. FIG. 9. Amphora foot.
Brown clay. White slip.

All these fragments are probably from Chian amphorae of the late seventh century. A complete amphora of this type was found at Naucratis.[30]

The following fragment is probably imported.

22. FIG. 5, PLATE 7 *a*. Fragment of neck. D. of mouth *c.* 0·12.
Brown clay, reddish in break. Unslipped. Lip covered with dark brown glaze inside and out. Brown wavy lines on neck.

Hydriae.

The bell mouths of hydriae are easily distinguished from amphora mouths, which have thickened lips and vertical-sided necks. Moreover, we found a number of fragments of horizontal side handles. The following pieces are illustrated.

23. FIG. 5. Fragment of lip. D. of mouth *c.* 0·15.
Gritty light-brown clay. Inside reserved: outside covered with grey-white slip. Lip black: then black horizontal bands round neck.

24. FIG. 5. Fragment of lip. D. of mouth *c.* 0·15.
Gritty red-white clay. Inside reserved: outside covered with thick slip, rather worn. Lip red: thin red horizontal bands round neck.

24 bis. PLATE 7 *a*. Other fragments of large closed white-slipped vases. Groups of concentric compass-drawn circles are a favourite pattern.

Kraters.

25. PLATE 7 *a*. The only truly geometric sherd found in the excavation comes from a large krater.
Grey-brown gritty clay: white slip tinged with red. Inside black. Outside, horizontal bands, narrow zone containing fine vertical lines and ‘ double axe ’, horizontal bands. Probably Chian, but obviously a stray.

26. FIG. 5, PLATE 7 *a*. Fragment of rim with spring of horizontal strap handle. D. of rim *c.* 0·33.
Brown gritty clay. White slip inside and out. Lip and handle light brown. Inside, groups of five concentric semicircles hanging from a broad brown band. The hole for the compass point is clearly visible; the compass was twisted clockwise and turned too far, so that all the semi-circles cut the band above them: this shows that a multiple compass was used.

27. FIG. 5. Fragment of rim. D. *c.* 0·50.
Brown clay with brick-red and grey patches in break. Thick white slip. Outside of lip red: part of a group of red concentric circles visible on outside below the projecting rib.

---

[30] Flinders Petrie, *Naucratis* I, pl. 16, no. 4.

28. FIG. 5. Fragment of rim. D. *c.* 0·47.
Gritty brown clay, unslipped and undecorated. The lower part of the inside is scored with deep narrow horizontal incisions, apparently cut while the vessel was being turned on the wheel. Many fragments found in the red earth and in the stony pit had similar scorings: all were unslipped and undecorated. Perhaps they were used as mortars, or else as cooking-pots, and the object was to increase the area of hot surface in contact with the contents of the pot.

29. FIG. 5, PLATE 7 *a*. Fragment of rim. D. *c.* 0·37.
Gritty brick-red clay. Outside covered with white slip, tinged with red; inside reserved except for the inside of the lip. The edges of the rim are red, and on its top is a group of four narrow vertical red lines; round the neck three horizontal red bands, from the lowest of which hang two festoons; below there is part of a group of concentric circles.

30. FIG. 5. Fragment of rim. D. *c.* 0·29.
Brown gritty clay. Outside covered with very pale brown slip. Inside reserved except for the inside of the lip; outer edge of rim black; group of five vertical black lines on top of rim; two black bands round body.

31. FIG. 5. Fragment of rim. D. *c.* 0·37.
Brown gritty clay. Very pale brown slip inside and out. Rim red except for narrow reserved band round the top; red horizontal band on outside of body.

32. FIG. 5. Fragment of high foot. Greatest D. *c.* 0·18.
Gritty dark grey clay. Very thin light grey slip. Horizontal black bands round outside; inside plain except for black band round lower part; the bearing surface divided into black and reserved squares.

Large Basins.

33. FIG. 5, PLATE 7 *a*. Fragment of rim, with spring of handle. D. *c.* 0·37.
Brown clay. Thick dead white slip. Red horizontal bands outside; inside, two red horizontal bands just below rim. On the handle a black St. Andrew's cross between narrow lines.

34. PLATE 7 *a*. Fragment of a large open vase.
Very coarse gritty black clay. Thick yellow-white slip inside and out. Inside, broad black horizontal band; outside, six concentric compass-drawn circles above black horizontal band.

Small Basins.

35. FIG. 6, PLATE 7 *a*. Fragment of rim. Diameter uncertain.
Brown clay. Creamy white slip inside and out. Inside, broad black band immediately below rim; on top of rim three narrow vertical black lines between two St. Andrew's crosses.

36. FIG. 6. Fragment of rim. D. *c.* 0·25.
Brown clay. Creamy white slip inside and out.

37. FIG. 6. Fragment of rim with spring of horizontal strap handle. D. *c.* 0·27.
Grey gritty clay. White slip. Black band inside below lip.

38. PLATE 7 *a*. Fragment of a small open vase.
Brown clay. Yellow-white slip inside and out. Outside, two broad brown horizontal bands; inside, wavy lines between horizontal bands.

There is no need to suppose that the clay for making the slip was imported. Suitable white clay is found in Chios. An experiment with local white clay, carried out at the tile-factory of Mr. A. Michelos (to whom my thanks are due for his kindness in many ways and upon many occasions), succeeded excellently, though there was not time to refine the clay as much as the makers of ' Naucratite ' must have done.

The modern Chiot vases with painted decoration upon a white ground are not slipped in the ancient manner but covered with a preparation of lime.

STONEWARE BASINS

The various deposits excavated produced a series of fragments of large basins whose fabric somewhat resembles that of an old-fashioned ginger-beer bottle. They are all unslipped and undecorated. They form a distinct series, which develops quite differently from that of the painted basins and may be traced as far as the Hellenistic period. I do not believe that they are Chian, as they were rare, especially in the earlier deposits, but as I do not know where they were made I have called them ' Stoneware ' for want of a better name. Two fragments were found in the red earth.

39. FIG. 6. Fragment of rim. Diameter uncertain.
40. FIG. 6. Fragment of rim. Diameter uncertain.

LAMPS

41. FIG. 7. Fragment of rim and nozzle. D. 0·08.
42. FIG. 7. Nozzle. Diameter uncertain.
43. FIG. 7. Part of floor of lamp, with raised hole in the middle. D. *c.* 0·075.

All are made of light-brown clay, unslipped and undecorated.

These lamps belong to Broneer's Type I,[31] but our no. 41, which has an unbridged nozzle, is of an even more primitive form than the Corinthian examples.

43a. FIG. 23. Small sea-shell. The hole visible in the photograph was perhaps pierced so that it could be used as a lamp.

II. DEPOSIT BETWEEN THE TWO WALLS AT THE NORTH END OF TRENCH A[32]

Fine Local Vases

44. PLATE 7 *c*. About half body of small round-mouthed oinochoe. H. 0·09.

Fine fabric. Light-brown clay; white slip outside and on inside of rim. Two black bands round middle of body and one round foot.

45. FIG. 11. Mouth, handle, neck, and shoulders of small trefoil-mouthed oinochoe, reconstructed from fragments, some of which are lost. H. as preserved, 0·14.

Rounded shoulder; trefoil mouth; vertical strap handle which does not rise above the top of the lip. Light-brown clay, white slip. Lip, neck, and shoulder black; lower part of body white with black horizontal bands; handle barred black and white.

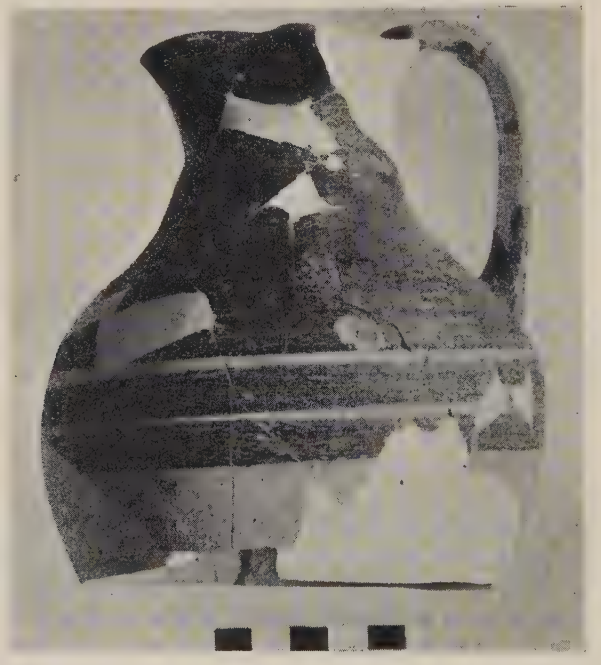


Fig. 11.—Trefoil-mouthed Oinochoe 45 (II).

Lamps

46. FIG. 7. Nozzle and fragment of body. D. 0·08.

Light-brown clay, unslipped and undecorated.

Compare Broneer, *op. cit.*, fig. 14, 11, Type II. This type, according to Broneer, seems to belong to the second half of the sixth century.

---

[31] I have classified all the lamps found in the excavation according to the system laid down by Broneer in *Corinth* IV ii, and must be understood to refer to this work when I speak of lamps of Type I, Type II, etc.

[32] See plan, FIG. 3.

47. FIG. 7, PLATE 9 *e*. Greater part of lamp reconstructed from fragments.
Light-brown clay, dark-red glaze on lip and spout. Similar lamps were found in the Heraeum at Samos.[33] Their profile resembles Broneer's fig. 14, 5, but they are definitely later than lamps like our nos. 39–41, and should be regarded as a distinct type.

AMPHORAE

48. This deposit contained several feet of the types illustrated in FIG. 9 (*c*, *d*).

Probably not all come from amphorae. Mr. Kondoleon has found some remarkable tall kraters, with ovoid bodies like amphorae and feet like those illustrated. But, as appears clearly from FIG. 5, these feet fall naturally into the amphora series. They are made of coarse gritty light-brown clay, unslipped. Fragments from the upper parts of their bodies were decorated with broad red loops and horizontal bands.

Unfortunately the deposit contained no amphora necks and no krater mouths.

STONEWARE BASINS

49. Fragment of rim. D. *c*. 0·50.
Brown gritty micaceous clay, showing grey in the break.
50. FIG. 6. Fragment of rim. D. *c*. 0·33.
Similar clay.

III. THE LOWER STONY PIT (N ON PLAN III) IN TRENCH B[34]

This deposit unfortunately contained no fine ware by which it might be dated closely, but the few fragments of large vessels all belong to the end of the archaic period, except the relief pithos, which may be earlier.

AMPHORAE (CHIAN)

51. FIG. 8. About half neck, with one handle. Greatest D. of rim *c*. 0·14 (the mouth is not perfectly circular, having been compressed when the handles were added).
Light-brown clay, unslipped. Rim red; a single thin red stripe runs down the back of the handle. (*Cf*. 51 *a* and *b* in FIG. 8. See p. 169.)

In this pit were several feet of the type shown in FIG. 9 *e*. They differ from no. 48 not only in shape but in fabric, being made of a far smoother, less gritty, clay.

These amphorae are certainly Chian, but they were widely exported. Examples are known from a late sixth-century tomb in Olbia,[35] from Naucratis,[36] Athens,[37] and Corinth.[38]

This evidence shows quite clearly that amphorae of this type belong to the late Archaic period.

AMPHORAE (LESBIAN(?))

52. FIG. 8. One handle and about one third of rim. D. 0·15.
The clay is a dark grey, almost black, through and through. Unglazed. These amphorae are almost certainly related to the grey bucchero of Lesbos.
53. FIG. 8. Handle. Diameter of neck uncertain.
Similar fabric. Probably from a wide, squat amphora.

---

[33] Technau, *op. cit.* 53, fig. 45. Sixth century.

[34] See plan, FIG. 3, and section, FIG. 4.

[35] *AA* 1914, figs. 53 and 44; *ibid.* col. 231.

[36] Flinders Petrie, *Naucratis* I, pl. 16, 7.

[37] Vanderpool, *Hesperia* XV 278, no. 27 (and pl. 28). From the upper filling of Vanderpool's Rectangular Rock-cut Shaft.

[38] Campbell, *Hesperia* VII 608, nos. 211–16. From a well-filling of the late sixth and early fifth centuries; but these seem to have rather less bulgy necks.

STONEWARE BASINS

54. FIG. 6. About one-third of rim. D. 0·37.
Brown slightly micaceous clay.

SMALL BASINS

55. FIG. 6. Fragment, giving complete profile. D. 0·21. H. 0·072.
Coarse light-brown clay covered with thick white slip inside and out.

RELIEF PITHOI

56. PLATE 8 *b*. Two fragments, (*a*) from the rim, (*b*) from the shoulder, probably of one large pithos. Dimensions uncertain.

Coarse grey clay, red in break. For the pattern on the lower part of (*b*) compare Blinkenberg, *Lindos* I, no. 922 (pl. 41), Salzmann, *Nécropole de Camirus*, pl. 26, 2 (= Courby, *Les Vases Grecs à Reliefs* 59, fig. 13, 6), Laurenzi, *Clara Rhodos* VIII 34, fig. 15, and several bands round the body of a great pithos from the Makri Langoni cemetery at Kameiros (Jacopi, *Clara Rhodes* IV, fig. 334). Our piece is probably an import from Rhodes, but it must be noted that the hook pattern is turned the other way on most Rhodian vases: perhaps this shows that ours is a local copy. In any case it is probably much older than the vases found with it. A large relief pithos would be valuable and might have a long life.

IV. THE LARGE STONY PIT (F) IN TRENCH A

CHIAN FINE POTTERY

This pit contained several fragments of chalices. No example is illustrated as none is in any way remarkable.

CORINTHIAN

67. Not illustrated. Part of the foot of a Late Corinthian kotyle.
Widely splayed ring foot; fine rays. Compare Payne, *NC* Cat. 973.

FIKELLURA

68. Not illustrated. Fragment of a closed vase with painted scale pattern.

IONIAN BLACK FIGURE

69. PLATE 6. From the shoulder of a closed vase.
Grey clay, red in break; the colour may be due to accidental burning. On right, human hand holding tendril of creeper (or olive branch), on left, (?) body of dancer. Good drawing; details incised. White used for the creeper and an unidentifiable object directly above it.

70. PLATE 6. Fragment of kylix.
Light-red clay. Brown glaze. Inside, two thin red bands painted on glaze. Outside, two rows of ivy leaves rather carelessly executed.

ATTIC POTTERY [39]

57. PLATE 6. From the floor of a large kylix.
58. PLATE 6. Fragment of epinetron.
Palmette chain: in the centre of each palmette is a white dot; above, incised scales with a dot in the middle of each.
59. PLATE 6. From the floor of a red figure kylix.
Glaze misfired, red outside; the inside varies from black to brown. In the central medallion the back and one foot of a naked kneeling figure. Compare Vanderpool, *Hesperia* XV 287, no. 56, pl. 36, from the upper fill of the rectangular rock-cut shaft, *i.e.* just before 480 B.C., Beazley, *ARV* 117, no. 36.

---

[39] Mr. P. E. Corbett examined drawings of the sections of fragments from this pit (not published) and gave me much useful advice. I must also express my gratitude to Mr. R. C. Moore, of Christ Church, Oxford, who discussed these pieces with me in Chios.

60. PLATE 6. From a closed vase, perhaps a small oinochoe.

Two horses' heads, probably from a quadriga. That on the right is in profile to the left, the other is seen from the front; it has a red mane and a white star on its forehead. Details incised. Certainly the finest fragment found in the excavation. Compare Graef and Langlotz, *Die Antiken Vasen von der Akropolis zu Athen*, no. 627, pl. 39, especially 627 *e*, also M. Z. Pease, *Hesperia* IV 248, no. 55, 249 fig. 17, by the same hand.

61. PLATE 6. Part of floor of kylix.

Alternate red and black tongues round a central medallion.

62. PLATE 6. Probably from a lid.

Inside, fine purple band on black glaze. Outside, boy's head and shoulders; he appears to be raising the fingers of his right hand to his lips, but the hand is badly drawn and disproportionately large. Perhaps I have misinterpreted the drawing.

63. PLATE 6. Fragment of the shoulder of a small lekythos.

Double row of short black tongues.

64. PLATE 6. Fragment of rim of lid.

Ivy leaves round rim; above, part of legs of running man and (?) horse. Bad drawing; probably of the late sixth century.

65. PLATE 11 *c*. From a small amphora.

Upon a reserved panel on the shoulder, a chain of black lotus buds; in the middle a helmet plume; details of the plume are incised and picked out with white paint.

66. PLATE 11 *c*. Part of rim and handle-plate of a column-krater. D. of rim *c*. 0·35.

Accidentally burned grey. On the rim, a chain of linked lotus buds. On the handle-plate, a palmette.

Other Attic fragments from the stony pit included feet and rims of small bowls and drinking-cups.[40] Most of these were of late sixth-century or early fifth-century types, but some certainly belonged to the end of the fifth century. These later pieces suggest that the pit was filled in at the end of the fifth century, but with material that had been collected together about eighty years earlier and not much disturbed subsequently.

One piece of an early fifth century bowl had a black lip and bright red glaze on the body; the red glaze overlapped the black in places and was badly flaked, confirming Miss Richter's account of the manufacture of such vases.

The remaining pieces of Attic black figure which are illustrated were found in levels which had been disturbed by modern cultivation. Their contexts are thus unimportant and they may conveniently be described here.

Attic Black Figure

71. PLATE 6. Fragment of band cup.

Inside black. Outside, two warriors; the one on the right has a Greek helmet and hoplite shield; he is running to the right, looking back at a pursuer who also carries a hoplite shield (seen in profile) but wears a Phrygian cap. Perhaps a scene from the Trojan War. Details incised. Crude but lively drawing.

72. PLATE 6. Fragment of a closed vase.

In a reserved panel, whose edge is preserved on the left, a man is standing with his head (bearded chin only preserved) turned to his right. Over his right shoulder appears the end of a staff or spear. Details incised. Added red on clothes.

73. PLATE 6. Fragment of lid.

Inside, two narrow purple stripes on black glaze. Outside, narrow black rays radiating from centre; animal frieze (head of panther, part of hindquarters of second animal). Panther's mane red. Details incised. Compare Vanderpool, *Hesperia* VII 398 f., 'Rectangular Rock-cut Shaft', no. 33, fig. 35, from the lower fill.

74. PLATE 6. Fragment of lid. Thicker than no. 73 and not from the same lid.

Inside, two purple bands on black glaze. Outside, tips of rays; frieze with standing woman, in profile to right, and hindquarters of lion or panther to right. Details incised. Red on the woman's clothes.

Large Vases

Chian Amphorae

The stony pit contained a great number of amphora fragments. A few were from white-slipped amphorae like nos. 17–21, but by far the greatest number were of the unslipped type, with bulging neck (compare FIG. 8). It was quite impossible to reconstruct any of these amphorae, even partially. The following typical fragments are illustrated.

75. PLATE 7 *d*. Fragment of neck.

Light-brown, rather gritty clay. Lip reserved; small red circle with central dot on side just below lip. There were many other pieces like this.

---

[40] Among these were pieces of rims and feet resembling Bloesch, *Formen attischer Schalen*, pls. 3.2, 35.4, 36.1, 2, 4.

76. PLATE 7 *d.* Fragment of neck.
Lip red; red cross with long horizontal and short vertical arms on side of neck. This seems to be rare.
77. PLATE 7 *d.* Fragment of neck.
Lip reserved; just below it is a small circle (without central dot) stamped in the clay.

With this type of neck, as has already been observed, belong feet like FIG. 9 *e*. Fifty-two feet of this type were found in the Stony Pit. FIG. 9 *f* seems to belong to a rather smaller contemporary type; this deposit contained three examples. There was also one foot like FIG. 9 *g*; this is certainly much later and is probably another late fifth-century intrusion.

Handles from the pit usually had fine red or brown lines down the back, and many body fragments were decorated with fine horizontal or vertical lines. It would appear that these amphorae with fine lines belong to the late sixth and early fifth centuries, and ones like our no. 48, with broad bands, belong to the middle of the sixth century.

Foreign Amphorae

Origin Unknown

The feet shown in FIG. 10 *a*, *b*, *c*, probably come from squat, bulbous amphorae like those shown in *Hesperia* VII 605, fig. 27, nos. 192, 193. Their clay is not noticeably different from that of the Chian amphorae, but they are probably imports, though their place of origin is quite uncertain.

Lesbian (?)

78 and 78a. Several fragments of the same fabric as nos. 52, 53 above. FIG. 8 shows a fragment of a handle and mouth (diameter unknown) and a foot.

Kraters

79. FIG. 5. Fragment of rim and body. D. *c.* 0·40.
Coarse gritty brown clay unslipped and unglazed. The inside deeply scored with horizontal grooves. Compare no. 28.
80. FIG. 5, PLATE 7 *d.* Fragment of rim. D. *c.* 0·27.
Brown gritty clay. Thin grey slip outside; inside reserved. Lip black; black band round bottom of neck; black loops on body.
81. FIG. 5, PLATE 7 *d.* Fragment of rim. D. *c.* 0·26.
Gritty grey clay. Thin grey slip inside and out. Top of rim reserved except for group of five short vertical lines. Outer edge of rim black; two black bands round neck, and from the lower hang two black festoons.
82. FIG. 5, PLATE 7 *d.* Fragment of large round-mouthed jar. D. of mouth *c.* 0·18.
Light-brown clay. Thin pale grey slip outside. Broad black bands round mouth and projecting rib; two narrow black bands, from the lower of which hangs a group of five concentric semicircles.
83. FIG. 5. Fragment of rim of dinos. D. of mouth *c.* 0·22.
Light-brown clay with grey patches in break. Unslipped. Woven red band round shoulder.
84. PLATE 7 *d.* From a large vase, perhaps a krater.
Light-brown clay, unslipped. Black glaze, thinned to brown in places. Thin wavy line above two broad bands.
85. PLATE 7 *d.* Fragment of the same fabric as no. 79.
Inside scored with horizontal grooves; on outside, incised wavy line between two horizontal lines.

Large Basins

86. FIG. 5, PLATE 7 *b.* Fragment of rim. D. *c.* 0·32.
Grey-brown clay. White slip on inside only. Yellow-brown criss-cross pattern on top of rim; inside bowl, group of six concentric compass-drawn circles.
87. FIG. 5, PLATE 7 *b.* Fragment of rim. D. *c.* 0·33.
Light-brown clay. White slip on inside only. Red criss-cross pattern on top of rim.
88. FIG. 5, PLATE 7 *b.* Fragment of rim, from the top of which springs part of a handle. D. *c.* 0·44.
Light-brown clay. Unslipped. Red criss-cross on top of rim; broad red band round inside just below rim; second broad red band round middle of floor.
89. FIG. 5. Fragment of rim. Diameter uncertain.
Light-brown clay, unslipped. Red criss-cross on rim and broad red band round inside just below rim.

90. FIG. 5, PLATE 7 *b*. Fragment of rim. D. *c.* 0·40.
Light brown, unslipped. Outer edge of rim black; on top of rim two black wavy bands. Red bands inside, just below rim and round middle of floor.

91. FIG. 5, PLATE 7 *b*. Fragment of rim. D. *c.* 0·36.
Light-red clay unslipped. Outer edge of rim red; on top of rim red triangles, their bases forming a continuous line round the outer edge, their apices pointing inwards; inside, broad red band just below rim.

92. FIG. 5. Fragment of rim. D. *c.* 0·38.
Light-brown clay, unslipped and unglazed.

93. FIG. 5. Fragment of rim. D. *c.* 0·31.
Light-brown clay, unslipped and unglazed.

94. FIG. 5. Fragment of high ring foot. D. of foot ring *c.* 0·24.
Gritty brown clay. Thick white slip inside and outside; that on the inside is badly worn, which suggests that the basin may have been used as a mortar.

95. FIG. 5, PLATE 7 *b*. Fragment of high ring foot. D. of foot ring *c.* 0·16.
Gritty red-brown clay. Reddish slip inside and out, except for underside of foot. Outside of foot red; on inside, three red bands.

96. FIG. 5. Fragment of high ring foot. D. of foot ring *c.* 0·18.
Light-brown clay, unslipped. Outside of foot black: on inside, two red bands.

These large basins seem to form a series extending over one hundred and fifty years, from the last quarter of the seventh century to the first quarter of the fifth. (It is possible that the latest, nos. 92 and 93, are to be counted among the late fifth-century pieces found in the stony pit, but I do not think it likely.) The development of shape and decoration seems clear, though not supported by stratigraphical evidence, as almost all the pieces were found in one context. The oldest basins (nos. 33–4) are slipped all over both inside and out. The shape of the rim of no. 33 is probably not typical, as the only part preserved was under the handle.

Basins slipped on the inside only were not found in the red earth, and so are probably a little later, perhaps about the first quarter of the sixth century. It seems reasonable to suppose that basins ceased to be slipped at about the same time as amphorae; the earliest unslipped basins will then belong to a period fairly early in the sixth century. They have rims of the same general type (the section resembles an obtuse-angled triangle with the longest side concave) as the slipped basins, and the same criss-cross decoration on the rim. Compare FIG. 5, nos. 86–8.

Probably during the second half of the sixth century the rim became wider and tended to droop downwards; it became quadrilateral instead of triangular in section; and a few pieces (nos. 89, 92) have a projecting rib running round the inside. New patterns, such as wavy lines and short triangles, replace the criss-cross on top of the rim. Finally, perhaps at the beginning of the fifth century, all decoration was given up.

Stoneware Basins

97. FIG. 6. Fragment of rim. Diameter uncertain.
Gritty, light-brown, slightly micaceous slay.

98. FIG. 6. Fragment of rim. D. *c.* 0·32.
Similar.

99. FIG. 6. Fragment of rim. D. *c.* 0·24.
Similar.

100. FIG. 6. Fragment of flat base. D. of base *c.* 0·16.
Similar.

Lamps

Several fragments from lamps like no. 47.

Cooking Pots

100a. FIG. 12. Numerous fragments. Very thick, heavy, coarse fabric. No complete shapes preserved, but the pieces found all came from round-bodied, half-closed pots with out-turned lips, with round mouths about 25 cm. in diameter, and rolled horizontal handles (probably two in number) joined to the widest part of the body.

Relief Vases and Architectural Fragments

101. FIG. 14. Fragment of rim of large basin. Diameter uncertain.
Coarse dark-red clay, unslipped and unglazed. Heavy projecting rim. The outer edge of the rim is divided into three convex ridges, the middle one much narrower than the other two; the top one is scored with short deep vertical cuts.
102. FIG. 14. Part of the body of a large jar.
Coarse light-brown clay, unslipped and unglazed; round the body a row of short stamped tongues.
103. *Vacat.*
104. PLATE 8 *a*. From the rim of a large relief pithos.
Dark-brown gritty clay.

The remaining fragments shown in PLATE 8 are not curvilinear; they therefore do not come from pithoi and are probably fragments of architectural revetments.

105. PLATE 8 *a*.
Gritty light-brown clay. Above, short tongues; below, a large rosette of twelve petals.
106. PLATE 8 *a*.
Similar clay. The palmette resembles Winter, *JdI* VII 113, fig. 17,[41] but I have not profited much by comparing the relief ornament on these fragments with painted ornament on vases.[42]
107. PLATE 8 *a*. Fragment of sima. Upside down in the photograph.
Compare van Buren, *Archaic Fictile Revetments in Sicily and Magna Graecia*, pl. III, fig. 12. Our piece is probably rather earlier.
108. PLATE 8 *a*. Fragment of tile(?).
109. PLATE 8 *a*. Fragment of animal frieze; legs of lion or panther to left. This piece seems rather small to have been used architecturally, but the animals would not have been very much smaller than those on the friezes from Statonia.[43]

There is no reason to regard any of these pieces as late fifth-century intrusions. They are certainly part of the original late Archaic deposit.

The fragments shown in PLATE 8 (except no. 56) are all from late confused contexts. They may be rather later in date.

110. PLATE 8 *b*. From the rim of a large pithos.
Corded pattern round the outer edge of the lip.
111. PLATE 8 *b*. Architectural fragment.
Egg-and-dart pattern.
112. PLATE 8 *b*. Two fragments of the shoulder of a large pithos.
113. PLATE 8 *b*. From a large pithos.
For the incised wavy line round the shoulder compare no. 85.

V. THE LOWEST LEVEL OF THE WELL (H) IN TRENCH A.

The bottom metre of the well was filled with dark earth containing comparatively little pottery. What there was came from small vases which had certainly been broken before being thrown away: for example, if the askos no. 119 had gone in complete, we would have found the mouth and handle. This dark earth was sealed by a level layer of white clay rather less than half a metre thick. In this there were very few sherds, and as most of them belonged to pieces found in the lower layer, the whole must be regarded as one deposit. There was no obvious chronological difference between the vases from the top of this deposit and those from the bottom.

Vases from the well are classified according to fabric. A short discussion on the development of various shapes will be given after the catalogue.

---

[41] Winter's reference to British Museum E 23 is surely wrong: probably E 61 is meant, by Makron (Beazley, *Attic Red-Figure Vase Painters* 307).

[42] Dinsmoor has examined very closely the dating of palmette chains on Attic vases of the late Archaic period (*AJA* L 86 ff.).

[43] van Buren, *Figurative Terracotta Revetments in Etruria and Latium*, pl. 23.

Black Glaze, Probably Attic [44]

114. FIG. 13. Small plate. H. 0·025. D. 0·14.
Restored from fragments; rather more than half of rim and part of body are lost. In the middle of the floor, a ring of stamped palmettes within a rouletted circle; the surface is very much damaged and worn, but there seem to have been twelve palmettes connected by incised arcs.

Compare Corbett, 'Attic Pottery of the Later Fifth Century,' *Hesperia* XVIII 344, no. 153, and fig. 4 (from a mid-fourth-century deposit).

115. FIG. 15, PLATE 9 *d*. Bowl with inturned rim. H. 0·051. D. of rim. 0·156.
Great part of rim lost. High ring foot. Shallow body with curved sides and slightly inturned rim.

In the centre of the floor, six stamped palmettes linked by incised arcs, one of which has been accidentally omitted. Round them, six narrow concentric bands of rouletting. Rather similar patterns, but usually with eight palmettes, are found on plates from Olynthus.[45] The pattern on Thompson's A.1 is worse executed and probably later.[46]

116. Small krater-shaped drinking-cup. H. as preserved 0·08.
About one third of base and body; spring of horizontal rolled handle.

117. Handle of kantharos. D. of rim *c.* 0·08.
Glaze outside rather dull. Perhaps not Attic.

118. FIG. 17. Small lagynos. H. as preserved 0·05. Greatest D. 0·086.
Body restored from fragments, some missing; mouth and most of handle lost. Low wide ring foot, squat rounded body, ring handle. Close to early fourth-century lagynoi from Olynthus.[47]

119. PLATE 9 *a–b*. Askos. H. as preserved 0·045. D. of base 0·12.
Complete except for spout and handle. Rather worn and chipped. Flat foot, slightly set off from body; low body with wide sloping shoulders; top flat and marked with a series of concentric circular grooves; there seems to have been a central knob, which is lost. The lower part of the body and the preserved parts of the spout and handles are black; the rest of the vase is covered with red-figure decoration. On each shoulder are two confronted female heads. They wear Phrygian bonnets, but their fat cheeks, heavy rounded chins, thick lips, and piggy eyes forbid us to regard them as Amazons.[48] The heads on one side have the hair screwed up into a bun on either temple; those on the other wear it in a fringe, which is a more usual fashion. The spaces between the heads are filled with a roughly-executed wave pattern. Below the heads and round the central knob are tongues which seem to be a degenerate version of the egg-and-dart pattern. Compare Blinkenberg, *Lindos* I, no. 2705, pl. 129 ('fragment d'un aryballe à panse large et basse'), also some of the later vases from Olynthus,[49] especially pl. 120, no. 267 and pl. 122, no. 270. But I see no reason to regard our vase as Olynthian, or anything but Attic. I do not know another askos decorated in this way.

Other Black Glaze

120. FIG. 15. Bowl with out-turned rim. H. 0·046. D. 0·146.
Foot, with about one third of rim and body; restored from fragments. Pale brown clay, grey in break. Good but thin black glaze inside and out; inside of foot ring reserved.

121. FIG. 16. Bowl with inturned rim. H. 0·03. D. 0·067.
Complete except for a few chips. Rather coarse red clay; dull worn dark-brown glaze. A small hole was pierced through the middle of the bottom at some time after firing; the bowl cannot therefore have been used for liquids.

122. FIG. 17. Small lagynos. H. as preserved 0·055. Greatest D. 0·08.
Restored from fragments; mouth and upper part of body lost. Low ring foot, squat body, spring of vertical strap handle. Red clay. Poor patchy glaze, varying from dark brown to black.

123. FIG. 17. Small lagynos. H. as preserved 0·057. Greatest D. 0·074.
The upper part of the body of a lagynos similar to no. 122; mouth and handle lost. This form, with a vertical strap handle, is also known from Olynthus.[50]

Half-glazed and Unglazed Pottery

124. PLATE 10 *a*. Deep bowl. H. 0·08. D. of rim 0·13.
Restored from fragments, of which a large number are lost. Small ring foot; wide body. Smooth red clay. Broad band of dark-brown glaze round upper part of outside; narrow band round inside of lip.

125. FIG. 16. Small bowl with out-turned lip. H. 0·037. D. 0·115.
Restored from fragments, some missing. Dark-brown clay. The lip is covered with thin black glaze inside and outside.

126. FIG. 16. Small bowl with out-turned lip. H. 0·032. D. 0·092.
About one third of bowl, restored from fragments. Red clay. The lip is glazed black outside and chestnut brown inside; from the lip the glaze has run down into the inside of the bowl.

---

[44] No particular description will be given of the fabric of these vases unless it differs in some way from that of ordinary Attic black glaze.

[45] *Olynthus* V, pls. 157–9.

[46] Thompson, *Hesperia* III, 'Two Centuries of Hellenistic Pottery'. I shall refer to this article, upon which all discussion of the dating of Hellenistic pottery must be based, as 'Thompson'.

[47] E.g. *Olynthus* V, pl. 172, no. 823.

[48] But on the lid of a lekanis from Rhodes (*Clara Rhodos* VII 516–17, figs. 45–6) somewhat similar ladies confront griffons.

[49] *Olynthus* V, pls. 119–24.

[50] *Olynthus* V, pl. 171, no. 806.

127. FIG. 16. Small bowl. H. 0·037. D. 0·112.
Complete except for a few fragments. Brown clay. Lip black inside and out. This shape seems to be a local variation of that of nos. 125, 126.

128. Several fragments of shallow bowls with horizontal strap handles were found in this level, but not in the later ones. None could be reconstructed sufficiently to be worth illustrating. Diameters from about 0·12 to about 0·15. Reddish clay, often grey in break. Handles and rims covered with dark-brown glaze, which had often run down inside.

129. PLATE 7 *c*. Fragments of kernos. D. of small bowl 0·033.
Brown clay. Traces of black glaze inside and out.

130. PLATE 7 *c*. Fragment of kernos. D. of small bowl 0·052.
Red-brown clay. Red glaze round rim of small bowl; two red bands inside main bowl.

See Thompson, *op. cit.* 447–8, and Shear, *Hesperia* VIII 207 ff., for the use of Kernoi in the worship of Eleusinian Demeter. This level contained several fragments of these interesting vases. On no two did the small bowls exactly match: but compare the Attic examples, especially Thompson's B.27,[51] which resembles ours in shape. More than one small bowl seems to have been not merely usual but a ritual necessity.[52]

131. PLATE 10 *b*. Oinochoe. H. 0·22.
Reconstructed from fragments: handle and most of body lost. Wide splayed ring foot, high flat shoulder, narrow neck, wide trefoil mouth. Red clay. Lip and outside of foot black; round the body two black bands. Above and below each black band is a narrow white band painted directly on the clay, another is painted on the upper black band.

Somewhat similar trefoil-mouthed oinochoai were found in Thompson's Group A (compare especially A.37; our piece has a thinner more elegant neck, and is glazed on the outside of the mouth; also A.48, 50, 51), but the shape does not seem to continue into the third century, being replaced by round-mouthed jugs like A.52, B.12, and our nos. 165–7 below. Our piece is probably rather earlier than Thompson's examples.

132. PLATE 7 *c*. Miniature amphora. H. 0·09.
Complete. Red clay, unslipped and unglazed. Compare Blinkenberg, *Lindos* I, no. 3164 (pl. 149). An ancestor of our vase was found in Ialysos in a grave containing a piriform Protocorinthian aryballos with scale-pattern.[53] None of our miniature amphorae [54] copies the full-size Chian wine jars of the period. The examples quoted above suggest that they may be imports from Rhodes, but they do not look very like Rhodian amphorae either. I think they were probably used as toys for children, but they may have been dedications.

WHITE-SLIPPED WARE

Among the most remarkable finds from the well were a number of small fine vases, mostly drinking-vessels, covered with white slip and decorated with golden-brown glaze. I have no doubt that these vases are the direct descendants of the archaic ' Naucratite ' chalices, though several generations of their pedigreee are lost in obscurity. A rather fuller discussion of this ware is reserved until after the catalogue.

133. PLATE 10 *e*. Tall drinking-cup. H. 0·11. D. of rim 0·075.
Restored from fragments; many pieces of the body lost. High widely splayed ring foot; tall body with wide flaring lip; two vertical handles. Light-red clay; outside covered with fine white slip; foot reserved; inside reserved except for the lip. There is a narrow band of golden-brown glaze round the outside just below the handles, and a broad band round the inside of the lip.
Fragments of at least two other similar cups were found in this level.

134. PLATE 10 *d*. Miniature hydria. H. 0·10.
Restored from fragments; one side handle, most of lip, and fragments of neck and body lost.
Red clay. Outside covered with white slip. Mouth reserved. Compare the small hydriae published by Miss Lamb in *BSA* XXXV 160 and pl. 36 *d* and *f*, which were chance finds from near Kato Phana; probably rather earlier than ours.

LAMPS

135. FIG. 7, PLATE 9 *e*. H. 0·054. Greatest D. (without nozzle) 0·08.
Part of side wall lost. Red clay. Good black glaze: underside of foot reserved. Probably Attic. Type VII.[55]

136. FIG. 7. H. 0·032. Greatest D. (without nozzle) 0·07.
Light-red clay, unglazed. A local variation of Type VII, similar in shape but without grooves round the filling hole.

137. FIG. 7, PLATE 9 *c*. Miniature lamp. H. 0·02. Greatest D. (without nozzle) 0·05.
Complete. Light-red clay, unglazed.

---

[51] *Op. cit.* 340, fig. 20.

[52] See Polemon in *Athenaeus* XI 478 c (quoted by Thompson).

[53] Jacopi, *Clara Rhodos* III 45, fig. 31.

[54] Nos. 162, 163 below.

[55] See Broneer, *Corinth* IV ii 45 ff., where evidence is given that this type began at the end of the fifth century and continued throughout the fourth. Ours is by no means one of the latest.

VI. THE SECOND LEVEL OF THE WELL (H) IN TRENCH A

Above the white sealing of the lowest level was about a metre of dark earth. This contained a greater amount of pottery, including fragments of large coarse vases (basins and wine amphorae) and roof tiles. The pottery from each half-metre was at first kept separate, but further study showed that the whole formed one consistent deposit.

Attic Black Glaze

138. FIG. 13, PLATE 9 *d*. Small plate. H. 0·022. D. 0·132.
About two thirds of a plate; greater part of rim lost. Glaze worn; rather metallic. In the middle of the floor, stamped palmettes (four preserved; probably there were six originally) within a ring of rouletting. The rim is heavier than that of no. 114, and the body is thicker and more solid. Compare Thompson's A.70.[56]

139. FIG. 13, PLATE 9 *d*. Plate. H. 0·039. D. 0·27.
Reconstructed from fragments; about half complete. Good black glaze all over. In the middle of the floor, palmettes (originally twelve) linked by incised compass-drawn arcs, then a band of rouletting; a chain of similar palmettes linked by incised arcs follows and then a second band of rouletting.

The general arrangement of the stamped decoration resembles that of *Olynthus* V, pl. 159, no. 622, but our plate is probably considerably later.

140. FIG. 13. Plate. H. 0·043. D. 0·297.
About half of plate, made up from fragments. Glaze black below, dark brown above. In the middle of the floor an elaborate incised star of six points surrounded by a ring of (originally) twelve palmettes (too badly worn to be photographed). On the bottom graffiti ΘΕ and Α.

141. FIG. 16. Shallow bowl with inturned rim. H. 0·026. Greatest D. 0·088.
Greater part of side and rim lost. Glaze very badly worn. Bearing surface of foot reserved. Bright red glaze inside foot ring. In the middle of the floor four stamped palmettes conjoined at their bases.

The base ring is wider than those of the late fifth-century examples published by P. E. Corbett, *Hesperia* XVIII 329, fig. 5, nos. 63, 154, but much narrower than that of a bowl from a cistern containing pottery of the second and third quarters of the fourth century. Mr. Corbett has examined our FIG. 16 and suggests that this piece was made in the first half of the fourth century. A small bowl of this shape would be hard to break and may well have had a long life. Moreover, in Chios Attic pottery would be more expensive than in Athens, and so more likely to be carefully kept.

There were similar shallow bowls in Thompson's Group A,[57] but their profiles are not illustrated, and I do not know whether they are exactly of this type.

142. FIG. 16. Small bowl. H. 0·035. Greatest D. 0·072.
Part of lip and side lost. Red clay. Thin metallic black glaze. Not certainly Attic.

143. Not illustrated. Small bowl. H. 0·038. Greatest D. 0·085.
About half lost. Similar.

Fragments of several other bowls of this type were found.

144. FIG. 16. Fragment of small bowl, giving complete profile. H. 0·032. Greatest D. *c.* 0·075.
Red clay. Thin black glaze, badly worn on outside. Foot reserved except for one narrow black ring. Compare Technau, *AM* XLIV 42, fig. 30, 2; but in our piece the 'false foot-ring', formed by prolonging the sides, has almost disappeared.

145. FIG. 15. Bowl with out-turned rim. H. 0·042. D. 0·126.
Restored from fragments; large parts of rim lost. Red clay. Thin metallic glaze inside and out. Rouletted circle round middle of floor.

Not certainly Attic. If it is, Mr. Corbett would place it in the last quarter of the fourth century. Close to Thompson's A.9, which, however, has a rather sharper rim.

146. FIG. 15. Saucer with furrowed rim. H. 0·038. Greatest D. 0·148.
About half preserved. Brown clay. Metallic black glaze inside and out. Outside, two narrow incised bands round lower part of body; inside, quadruple rouletted band round middle of floor. Not certainly Attic, but compare Thompson A.38.

147. PLATE 10 *c*. Kantharos. H. 0·085. D. of rim 0·065.
Restored from fragments; both handles and large fragments of body lost. Red clay. Thin metallic glaze inside and out. For kantharoi of this shape, see Thompson A.30, A.31, also Breccia, *Necropoli di Sciatbi*, pl. 51, no. 94, and pl. 52, no. 101 (referred to by Thompson). These vases belong to the end of the fourth century. Slightly later ones (*e.g.* Thompson B.4) are decorated in the West Slope style.[58]

This level contained several fragments of other kantharoi of the same type.

148. Pyxis. H. 0·043. Greatest D. 0·085.
Complete except for large fragments of lip and foot ring. Broad, widely splayed ring foot; straight vertical sides; wide flat projecting lip. Good black glaze inside and out. On the foot are scratched the letters ΚΛ. For the shape compare Breccia, *Necropoli di Sciatbi*, pl. 56, no. 116.

---

[56] *Op. cit.*, fig. 116.

[57] A.14–18.

[58] I believe that it is now customary to describe only those vases which are decorated with incised checkerboards and similar 'subgeometric' patterns as 'West Slope'. I hope that I may be excused using the words (as Thompson does in *Hesperia* III) in a wider sense. I am not immediately convinced of the usefulness of a restricted definition, that would separate (for example) Thompson's B.5 from C. 11. I have not seen a single sherd with 'subgeometric' West Slope decoration in Chios; but no Late Hellenistic site has been excavated in the island.

OTHER BLACK GLAZE

149. FIG. 13. Plate. H. 0·036. D. 0·23.
Restored from fragments. Most of centre of floor and a few pieces of rim lost. Grey-brown clay. Chocolate-brown glaze mottled with black. Centre of floor filled with concentric bands of rouletting.

150. FIG. 16. Small bowl with inturned rim. H. 0·036. Greatest D. 0·07.
Complete except for a few chips from the base ring. Grey-brown clay. Brown glaze; much of the outside is fired a dull black.

GREY WARE

Vases of a smooth, slate-grey fabric, usually covered with black glaze, first make their appearance in this level of the well, though they do not become common before the next.

151. FIG. 17. Fishplate. H. 0·035. D. 0·192.
Restored from fragments; about half of body and two thirds of rim lost. All over black glaze of fair quality.

152. PLATE 10 *c*. Kantharos. H. 0·10. D. of rim 0·75.
Restored from fragments; parts of handles, lip, and shoulder lost. Thin, rather metallic, black glaze all over inside and out. The shape seems to be copied from an Attic original, compare Thompson A.28. But a kantharos from Athens which must, from its context, be roughly contemporary,[59] is taller and with larger handles. Compare also Breccia, *op. cit.*, pl. 54, no. 109 (with rather less well developed spurs to its handles), and Goldman, *Hesperia* IX 459, fig. 140, no. 9, from Halae.

HALF-GLAZED AND UNGLAZED POTTERY

153. FIG. 15. Small plate. H. 0·029. D. 0·186.
About half body and greater part of rim lost. Brown clay, grey in break. Inside covered with metallic black glaze; outside reserved, except just below lip. Single shallow groove cut round the outside of the body just below the lip, before glazing.

154. FIG. 15. Small plate. H. 0·027. D. 0·156.
Greater part of rim lost. Red clay, grey in break. Metallic black glaze inside and out; foot reserved. Two broad shallow grooves cut round the outside of the body before glazing.

155. FIG. 15. Small plate. H. 0·036. D. 0·176.
Restored from fragments; small piece of floor lost. Red clay. Inside, metallic black glaze; the centre of the floor red, probably another plate was stacked on top of it in the kiln; outside reserved, except for the lip, from which the glaze has run down over a large part of the body. A single broad groove cut round the outside of the body before glazing.

156. Not illustrated. Small plate. H. 0·032. D. 0·15.
Restored from fragments. Great part of rim lost. Similar to no. 155.

This level contained fragments of several more plates of this type.

157. PLATE 10 *a*. Deep bowl. H. 0·086. D. of rim 0·12.
Restored from fragments; large pieces of body lost. Red clay, very fine fabric. Inside black, except just below the rim, which is red; the outside a brilliant red on the upper part of the body, black on the lower part and foot.
We have no other pieces of the same fabric as this very handsome vase, but its shape connects it with no. 124.

158. PLATE 11 *a*. Fragment of deep bowl. D. of rim *c*. 0·13.
Red clay, fine fabric. Streaky brown glaze; the outside of the foot is reserved, and there are two reserved bands round the upper part of the body.

159. FIG. 16. Small bowl. H. 0·033. D. 0·084.
Restored from fragments; greater part of side and lip lost. Brown clay, grey in break. Lip glazed dull black inside and out; remainder reserved.

160. FIG. 16. Small bowl. H. 0·043. D. 0·126.
Restored from fragments; greater part of side and lip lost. Light-red clay. Lip glazed black outside, dull grey inside; remainder reserved.

161. FIG. 17, PLATE 9 *c*. Small bowl with handle. H. (without handle) 0·017. D. of rim 0·052.
Complete. Red clay, unglazed.

The bottom level of the well contained fragments of at least three similar bowls, and there was part of another in this level.

162. PLATE 7 *c*. Miniature amphora. H. 0·103.
Complete. Red clay, unglazed. The handles are pressed in to the neck; compare no. 132 above.

163. Not illustrated. Another similar. The neck and handles lost.

164. Fragment of trefoil-mouthed oinochoe. H. as preserved 0·15.
Joining fragments, giving the neck, part of the shoulder, and part of the body. The foot, handle, and most of the lip lost. Red clay. Lip black; black bands outlined with white round the body. Compare no. 131 above.

---

[59] Young, ' Sepulturae intra urbem ', *Hesperia* XX 122, and pl. 52 *a*.

165. Fragment of neck and shoulder of round-mouthed jug. H. as preserved 0·10. D. of mouth 0·08.
Squat body; short wide neck; vertical strap handle. Red clay, burned black in places.

166. Neck, mouth, and part of shoulder of small round-mouthed jug. H. as preserved 0·10. D. of rim 0·05.
Squat body with sharply-turned shoulder; short, slightly flaring neck; high thickened rim; single vertical strap handle (broken).

167. Fragment of body, with handle and part of neck. H. as preserved 0·125.
Red clay, covered with coarse white slip.

White-slipped Ware

168. PLATE 10 *e*. Tall drinking-cup. H. 0·14. D. of rim 0·097.
Restored from fragments; one handle and parts of lip, foot, and body missing. Red clay; outside covered with fine white slip (badly worn). Inside reserved except for lip; narrow band of golden-brown glaze round outside below the handles; broad band round inside of lip.

169. Not illustrated. Base and lower part of body of similar large drinking-cup. H. to lower spring of handle 0·08.
Fabric and decoration like no. 168.

170. PLATE 10 *e*. Tall drinking-cup. H. 0·08. D. of mouth 0·055.
Restored from fragments; one handle, most of the second, and most of the lip lost. Fabric and decoration like no. 168.

This level contained fragments of several other small drinking-cups of this type.

171. FIG. 17, PLATE 10 *d*. Wide drinking-cup on short stem, with small horizontals trap handles. H. 0·08. D. of rim 0·13.
Restored from fragments; most of rim, about half body, and one handle lost. Red clay; inside and upper part of outside covered with thick even white slip; lower part of cup, stem, and foot reserved. Glaze circle round middle of floor inside; broad glaze band round inside of lip. Discoloured by burning.

172. PLATE 10 *d*. Similar drinking-cup. H. 0·075. D. of rim 0·12.
Complete except for considerable fragments of rim and foot. Red clay; only very slight traces of white slip preserved.

173. This level contained fragments of several other drinking cups of the same type.

West Slope Ware

174. PLATE 11 *a*. Fragment of lid. D. 0·19.
Red clay. Metallic black glaze inside and out. Round the top an ivy wreath in thinned clay; round the upper edge of the rim a single incised line. Attic. Compare the ivy wreath in thinned clay with white berries on the inside of Thompson's A.38 (a saucer with furrowed rim), and the kantharos B.36.

Local Vases with Added White Decoration

The following pieces probably represent the answer of the local potters to the new style. They succeed aesthetically, but commercially the venture seems to have failed. At all events pieces of this type are rare in this level and entirely absent from the next.

175. PLATE 11 *a*. Fragment of neck of small jug, with handle. D. of rim 0·065.
Short neck; round mouth with flaring lip; high up-swung handle. Red clay; inside reserved; outside has thin red glaze upon which is painted a white ivy wreath.

176. PLATE 11 *a*. Two fragments of rim of deep bowl. D. *c*. 0·13.
Light red clay. Inside has dull grey glaze except immediately below the lip, where there is a narrow brown band with a black band on it; top of lip white; outside reserved, except for a broad brown glaze band just below the lip, upon which a myrtle wreath is painted in white. For the shape compare no. 124 above.

177. PLATE 11 *a*. Fragment of rim of large basin. Diameter uncertain.
Red clay, grey in break. Outside reserved; inside, red glaze painted with white wave pattern.

Lamps

178. FIG. 7, PLATE 9 *e*. H. 0·035. D. (without nozzle) 0·075.
Complete except for chips from the nozzle and the pierced knob on the right-hand side of the body. Red clay. Worn black glaze all over. Probably Attic. Close to Type VIII.[60] There is a lamp of this type in Thompson's Group A.[61] At Athens lamps of type VIII are contemporary with the latest lamps of Type VII.[62]

179. FIG. 7. H. 0·04. D. (without nozzle) 0·065.
Complete. Red clay, unglazed. Nozzle shows signs of burning. Related to no. 178, but with a deeper body. Perhaps Chian.

---

[60] *Cf*. Broneer, *Corinth* IV ii, fig. 14, 36 and pl. 3, no. 137. Very rare at Corinth.

[61] A.45.

[62] Thompson A.41–4; also Young, *Hesperia* XX 122, pyre 7, nos. 1 and 2. Young places this group of material at about the turn of the fourth and third centuries.

180. PLATE 9 *c*. Miniature lamp. H. 0·017. D. 0·052.
Light-brown clay, unglazed. Slightly shallower and wider than no. 137 above, and with a narrower lip.

CHIAN AMPHORAE

181. This level contained large fragments of several wine amphorae, though unfortunately none could be restored. The feet found were of the following types:

FIG. 9 *e*	Two
FIG. 9 *k*	Nine
FIG. 9 *l*	One
FIG. 9 *m*	Five

FOREIGN AMPHORAE

182. The count of feet from imported wine jars is as follows:

FIG. 10 *d* (Kos)	Two
FIG. 10 *e* (Knidos)	One
FIG. 10 *l*	One
FIG. 10 *m*	One
FIG. 10 *o*	Two

182 bis. FIG. 10. Greater part of neck and one handle of foreign amphora of unidentified origin. D. of mouth (internal) 0·11.
Dark-brown clay.

LARGE LAGYNOI

183. FIG. 17. Neck and upper part of handle. D. of mouth 0·064.
Restored from fragments. Wide, slightly tapering neck, round mouth, thick lip, single vertical strap handle. Dark-red clay, unslipped and unglazed. Upon the upper part of the handle, a circular stamp about 0·015 in diameter.[63] A fragment of another handle with an identical stamp was also found in this level.

LARGE BASINS

184. FIG. 5. Fragment of rim and body. D. of rim *c*. 0·37.
Red clay, unslipped and unglazed.

185. PLATE 11 *d*. Handle and fragment of rim. D. of rim *c*. 0·25.
Red clay, unslipped and unglazed.

COOKING-POTS

Cooking-pots of the type described under no. 100 *a* above were not found in the Hellenistic levels. In their place three new types make their appearance.

186. FIG. 12. Half-open pots, probably round bottomed, with sloping sides, round mouths, and out-turned rims. D. of mouth *c*. 0·20.
Clay very coarse and gritty, but the walls of the pots are far finer than those of the late Archaic cooking-pots.

187. FIG. 12. Shallow open pots with horizontal rolled handles. D. of mouths *c*. 0·23–0·25.
Wide, sloping lip, on the inside of which is a rib to support a lid. Compare Thompson's C.73, C.75. Thompson (*op. cit.* 468) suggests that pots of this distinctive type may have been exported from some common centre, perhaps one of the islands. They would appear to have reached Chios rather earlier than Athens.

188. FIG. 12. Shallow open stew-pans. Flat bottoms, straight sides sloping slightly outwards, horizontal rolled handles. Sides and bottoms far thicker than those of the last two types. H. usually about 0·045–0·05. D. from 0·35 to 0·40.

VII. THE TOP OF THE WELL (H) IN TRENCH A

The first two metres of the well were filled with a mass of rubbish, mainly fragments of wine amphorae and roof tiles. They contained more pottery than soil. But all this great quantity of material was very fragmentary, so that it was quite impossible to reconstruct any vases completely, though the shapes of some of the smaller pots could be recovered. There was no discernible change in the fill during the digging; the pottery from each half-metre was kept separate, but when the four groups thus obtained were studied they were found to be exactly similar in nature. Moreover, fragments from different depths frequently joined one another. The whole is therefore to be regarded as one single deposit, probably thrown in for the express purpose of filling up the well.

---

[63] Miss Virginia Grace has kindly undertaken to publish the stamped handles found in the excavation.

Attic Black Glaze

189. FIG. 13. Plate. H. 0·033. D. 0·262.

Restored from fragments; about half lost. Good black glaze, very badly worn. In the middle of the floor a rouletted circle, within which are parts of three stamped palmettes; not enough of the floor is preserved to show the exact pattern.

189a. FIG. 13. Fragment of plate, giving profile. H. 0·047. D. about 0·21.

Good black glaze. In the middle of the floor part of a rouletted circle. For this shape, compare Waage, *Antioch on the Orontes* IV 1, pl. 1, 1, no. 1 K, which may be Attic (*ibid.* 11) and whose date is probably about 300 B.C.

190. FIG. 16. Fragment of shallow bowl with inturned rim. H. 0·023. D. 0·08.

About one third preserved. Good black glaze, badly worn. The rim is heavier and the floor thinner than no. 141 above. Mr. Corbett suggests a date about the middle or third quarter of the fourth century. It must in any case have been made considerably earlier than most of the pottery in this deposit.

Other Related Fabrics

191. FIG. 17. Fragment of fishplate. D. of foot-ring *c.* 0·55.

Restored from fragments; rather less than half preserved. Red clay. Dull black glaze; the bearing surface of the foot reserved: wide reserved band round the central depression; second reserved band round the outer edge of the preserved part of the floor (probably this marked the rim). Rouletted circle round middle of floor.

192. FIG. 17, PLATE 9 *c.* Miniature fishplate. H. 0·021. D. 0·092.

Greater part of floor and rim lost. Red clay, grey in break. Inside, dull dark purple glaze. Outside reserved.

This level contained several other fragments of fishplates, mostly rims.

193. FIG. 15. Bowl with inturned rim. H. 0·065. Greatest D. 0·13.

Restored from fragments; parts of lip and body lost. Brown clay. Inside, dull dark purple glaze mottled with brown; outside, streaky brown glaze; foot reserved.

194. FIG. 15, PLATE 12 *a.* Bowl with out-turned rim. H. 0·044. D. 0·128.

Restored from fragments; greater part of side-wall and mouth lost. Red clay. Dull dark purple glaze; outside of lower part of body and foot reserved. In the middle of the floor three small stamped palmettes within a ring of rouletting.

195. PLATE 12 *b.* Fragment of similar bowl.

On the floor, stamped palmettes within a circle of rouletting.

196. PLATE 12 *b.* Fragment of similar bowl.

Rather better black glaze. Palmettes joined by incised arcs within a circle of rouletting.

197. PLATE 12 *b.* Similar.

Nos. 196 and 197 may be Attic.

Grey Ware

198. FIG. 13, PLATE 12 *a.* Plate. H. 0·038. D. 0·19.

Restored from fragments; about half lost. All over dark-grey glaze, badly worn. In middle of floor, stamped palmettes (two only preserved) within ring of rouletting.

There were fragments of at least one other similar plate.

199. FIG. 17. Fragment of fishplate. D. of foot-ring 0·06.

Base and greater part of floor only, restored from fragments. Black glaze all over, except inside foot-ring.

There were fragments of several other fishplates, mostly resembling no. 151 in profile.

200. FIG. 15. Bowl with out-turned rim. H. 0·044. D. 0·152.

About half preserved. Black glaze inside; outside glaze varies from black to greyish brown; foot and lower part of body reserved. Round the middle of the floor a rouletted circle upon which are stamped two palmettes of the same type as that on no. 208 below. Probably there were three originally.

201. FIG. 15. Bowl with out-turned rim. H. 0·046. D. 0·145.

Restored from fragments; small part of side wall and rim lost. Black glaze; outside reserved except for lip, from which the glaze has run down the side in places. In centre of floor three small stamped palmettes within rouletted circle.

202. PLATE 12 *b.* Foot of small bowl. D. of foot-ring 0·06.

Grey-brown clay. Chocolate-brown glaze. In centre of floor, two concentric circles, roughly incised. Upon the inner one has been impressed a stamp consisting of three palmettes conjoined at the base.

203. PLATE 12 *b.* Foot of small bowl (fragment). D. of foot-ring 0·07.

Grey-brown clay. Dark-brown glaze. Stamped palmette within rouletted circle.

204. PLATE 12 *b.* Foot of small bowl. D. of foot-ring 0·06.

Grey clay. Black glaze. Three very crude stamped palmettes within rouletted circle.

205. PLATE 12 *b.* Foot of small bowl. D. of foot-ring 0·053.

Brown clay, grey in break. Dark-brown glaze. Three stamped palmettes.

206. PLATE 12 *b*. Foot of small bowl. D. of foot-ring 0·05.
Grey clay. Black glaze. In the centre of the floor a stamp formed of three palmettes conjoined at their bases.

207. PLATE 12 *b*. Fragment of foot. D. of foot-ring not recorded.
Part of stamped palmettes within rouletted rings.

208. PLATE 12 *b*. Fragment of foot. D. of foot-ring 0·055.
Grey clay. Black glaze inside only. Stamped palmette within rouletted circle.

Of the fragments illustrated, only nos. 204, 206, 208 are of the true grey fabric.

209. FIG. 16. Small bowl with vertical handle. H. 0·03. D. 0·06.
About one third of bowl; the handle broken; it was probably a high loop handle rising above the rim. Grey clay, black glaze inside and out.

210. FIG. 13. Fragment of plate or saucer. D. *c.* 0·22.
Several joining fragments, giving part of floor and about one fifth of rim. Low ring foot (broken); shallow sloping floor divided on the inside by a raised rib from the wide out-turned rim. Grey clay. Black glaze inside and out. Two rouletted circles round the middle of the floor, within which were stamped palmettes (part of one only preserved).

211. FIG. 17. Lagynos. H. as preserved 0·07. Greatest D. 0·10.
Mouth and handle broken, otherwise complete. Double convex body; ring handle. Grey clay. Outside completely covered with good black glaze.

HALF-GLAZED AND UNGLAZED POTTERY

212. FIG. 15. Plate. H. 0·027. D. 0·174.
About half preserved; restored from fragments. Streaky metallic black glaze; outside reserved except for rim.

From the very bottom of the upper deposit. It is later than nos. 153–5, but may be rather earlier than nos. 213–17.

213. FIG. 15. Plate. H. 0·036. D. 0·154.
Restored from fragments; rather less than half preserved. Brick-red clay. Dull purple glaze all over inside and outside. The narrow nick round the outside just below the rim and the single broad groove round the body a little farther down were cut before glazing.

There were very many fragments of plates of this type; some had one horizontal groove round the outside, some two. The clay is usually red. The glaze varies—often on the same fragment—from dull purple to red.

214. FIG. 15. Plate. H. 0·042. D. 0·17.
About half preserved. Red clay. Red glaze mottled with black inside and out; the foot-ring black. The glaze outside is thin and streaky.

There were several fragments of plates of this type, but they were not as common as those resembling no. 213.

215. FIG. 15. Plate. H. 0·039. D. 0·168.
About one quarter preserved. Red clay. Dark purple glaze inside; outside reserved except for rim. There were fragments of two other plates of this type.

216. FIG. 15. Fragment of rim of plate. D. *c.* 0·18.
Red-brown clay. Red glaze inside; outside reserved except for a big streak where the glaze has run down.

217. FIG. 16. Small bowl with out-turned rim. H. 0·28. D. 0·09.
About half bowl. Red clay. Inside covered with dull black glaze; outside reserved except for a trickle of glaze down one side.

218. FIG. 16. Fragment of small bowl with out-turned rim. H. 0·03. D. *c.* 0·08.
About one third of bowl. Red clay. Unglazed.

Fragments of similar small bowls were very common; the rims were usually covered with dull black glaze.

219. FIG. 16. Small bowl. H. 0·038. D. 0·093.
About half preserved. Streaky dull purple glaze all over inside and out.

220. FIG. 15. Bowl with inturned rim. H. 0·045. D. 0·135.
About half preserved. Red clay. Rim glazed, black outside, bright red inside; remainder reserved.

221. FIG. 16. Small bowl with inturned rim. H. 0·038. D. 0·082.
About half preserved. Red clay. Unglazed.

There were many fragments of other similar bowls.

222. FIG. 17; PLATE 9 *c*. Small bowl with handle. H. without handle 0·018. D. 0·041.
Red clay. Unglazed.

223. PLATE 10 *b*. Small krater-shaped vase. H. 0·14. D. of rim 0·115.
Restored from fragments; about half the rim, the handles, and much of the body lost. Red clay. Dull dark grey glaze; the foot fired red; inside reserved. Round the neck a wreath of myrtle leaves between two horizontal bands, painted in black over the glaze; round the lower part of the body another black horizontal band.

WHITE-SLIPPED WARE [64]

224. FIG. 17. Wide, short-stemmed drinking-cup with small horizontal handles. H. as preserved 0·05. Greatest diameter as preserved 0·09.
Foot lost; lip broken; otherwise complete. Red clay. On inside thick dead-white slip, upon which a broad brown horizontal band is painted just below the rim; outside the slip is thinner and worn through in places.

There are fragments of at least six similar cups.

225. FIG. 17. Wide, short-stemmed cup, without handles. H. 0·038. D. of rim 0·098.
Greatest part of lip lost, otherwise complete. Red clay, unslipped and unglazed.

There are numerous fragments of similar cups; some show traces of poor thin white slip.

---

[64] Several plain unslipped vessels are included in this section because their shape connects them with the slipped drinking-cups. The slipped ware is now very degenerate and obviously on the verge of extinction.

226. FIG. 17. Wide, short-stemmed cup, without handles. H. 0·045. D. of rim 0·09.
Complete except for fragments of rim. Light-red clay. Unslipped and unglazed.
Two similar cups were found almost complete. The laughable lopsidedness of these cups renders them quite unfitted for ordinary use; perhaps they were temple votives.[65]

West Slope Ware

227. PLATE 11 *b*. Fragment of rim of deep bowl or kantharos. D. *c*. 0·15.
Reddish-brown clay. Dull black glaze inside and out. Round the outside an ivy wreath between narrow horizontal incised bands; the tendrils of the ivy are incised, the leaves (very much faded) painted white.
228–232. PLATE 11 *b*. Similar fragments.

For similar ivy wreaths, compare Waage, *Antioch on the Orontes* IV 1, fig. 3, nos. 15, 16, 17, 19, 21, 24, 29. At Antioch such pieces were found in deposits which seem to have been closed in or just after the reign of Antiochus III.[66] Our pieces are less heavily decorated and probably earlier. Note also Boehringer and Krauss, *Altertümer von Pergamon* IX, pl. 57 *c*. 1, and the incised ivy wreath round the shoulder of a small trefoil-mouthed oinochoe from the North Gate Street at Halae.[67]

233. PLATE 11 *b*. Fragment of deep bowl or cup.
Red clay. Bright red glaze with incised wreaths.
234–6. PLATE 11 *b*. Fragments of rims, probably from kantharoi.
Reddish-brown clay. Glaze black outside, chocolate brown inside; white-painted myrtle wreaths between incised lines. Rather similar wreaths are quite common; the closest parallel known to me is from Pergamon.[68]
237. PLATE 11 *b*. Fragment of shallow saucer with flat out-turned lip. D. of rim *c*. 0·20.
Brown clay. Dark-brown glaze. Inside, incised stalks of ivy wreath (the leaves have faded). Above and below the wreath are shallow grooves cut rather carelessly before glazing.
238. PLATE 11 *b*. Fragment of rim of shallow saucer.
Reddish-brown clay. Black glaze. Inside, a narrow incised horizontal line below which appears part of a white painted design, probably floral.
239. PLATE 11 *b*. Fragment of rim of shallow saucer. D. *c*. 0·16.
Reddish-brown clay. Black glaze. Inside, incised ivy wreath with white painted leaves.
240–242. PLATE 11 *b*. Fragments of necks and shoulders of small closed vases, probably amphorae.
Good black glaze, upon which are painted ivy wreaths in thinned clay.
243. PLATE 11 *b*. Fragment of lip. D. *c*. 0·09.
Red clay. Excellent glaze, upon which is part of a design, probably ears of barley and flowers, in thinned clay and white paint.
244. PLATE 11 *b*. Foot of shallow saucer. D. of foot 0·07.
The foot is flat, but raised upon two very low concentric ribs. Reddish-brown clay. Outside reserved; inside covered with dark brown glaze upon which is painted, within a triple incised band, an eight-petalled flower or star, the petals being alternately white and red.
245. PLATE 11 *b*. Fragment of a similar foot.
246. PLATE 11 *b*. Fragment of a similar foot.
The petals drawn in outline only.
247. PLATE 11 *b*. Fragment of a similar foot.
Instead of a flower, thin rays in thinned clay.

For similar saucers, compare Thompson's C.12. This has a rather more solid flower in the middle; nearer to our nos. 244–5 is that published by Watzinger, *AM* XXVI 70, no. 7c. Both these pieces are rather later than ours. Probably still later is a very heavily decorated saucer from Kertsch.[69] Much closer parallels come from Pergamon.[70]

248–251. PLATE 11 *c*. Fragments from the necks and rims of small amphorae. D. of rims *c*. 0·12.
Reddish-brown clay. Good glaze varying in colour from dark brown to black. On the necks, chains of buds painted in thinned clay with incised stalks; over all, white painted festoons. Upon the only fragment of shoulder which is preserved, an ivy wreath in thinned clay.

Thompson's groups of Hellenistic pottery include a series of similarly decorated small amphorae. The design on the neck remains the same, but its quality falls off. Note the way in which the stalks of the buds on D.25 have become a mere incised squiggle. But on the shoulder the vine or ivy wreath is soon replaced by incised 'subgeometric' patterns (C.11, D.25, D.26), though it survives in a degenerate form on D.27. The closest parallel for our fragments, which are certainly Attic, is B.5.

---

[65] See below, p. 168.
[66] Waage, *op. cit.* 15–16.
[67] Goldmann, *Hesperia* IX 485, no. 15.
[68] Boehringer and Krauss, *op. cit.* pl. 57 *g*. 10.
[69] *AA* 1910, 211, figs. 9 and 10.
[70] Boehringer and Krauss, *op. cit.* pl. 57 *g*. 1, 2.

The design on the necks is not confined to amphorae; note the bowl B.26.

Compare also Waage, *op. cit.*, fig. 8, nos. 6, 7, 8, 10.

252. PLATE 11 *c.* Fragment of lip of small bell krater. Internal D. *c.* 0·15.
Black glaze inside and out. On the top of the rim an ivy wreath in thinned clay between incised lines. There is an exactly similar fragment from Pergamon.[71]

253. PLATE 11 *c.* Fragment of lip of small bell krater. Internal D. *c.* 0·18.
Black glaze inside and out. On the top of the rim a row of petals in white paint; each petal is surrounded by an incised horseshoe, and between the horseshoes are short vertical incised lines. The pattern may be derived from the egg-and-dart.

254. FIG. 17. Small Lagynos. H. as preserved 0·067. Greatest D. 0·125.
Neck and handle broken; otherwise complete. Red clay. Dark-brown glaze fired bright red in a large patch on the shoulder. Round the shoulder an elaborate chain pattern (FIG. 17) in white paint; no incision; very badly worn.

255. Not illustrated. Small Lagynos. Greatest D. 0·13.
Most of the body (less foot, handle, and mouth) of a similar lagynos, restored from fragments. Round the shoulder, an ivy wreath in white paint; no incision; very badly worn.

A remarkable group of vases from Delphi,[72] which must be rather later than this deposit, contains a small lagynos with a chain of thick yellow blobs round the shoulder; I do not know an exact parallel to the pattern on our no. 254.

256. FIG. 17. Cruet. H. as preserved 0·06. Greatest D. (less spout) 0·086.
Greater part of body; foot lost, one spout entirely lost, the other broken. The high domed body is divided into an upper and a lower compartment. At each end of the vase was a spout, one communicating with each compartment. Reddish-brown clay. Badly worn black glaze; round the shoulder an ivy wreath with incised stalks like those on nos. 227–32 above. The leaves have been completely worn away, and only the stalks are left.
It has been suggested, with some probability, that the two compartments were for oil and vinegar.
There were fragments of another similar vase in this deposit. There are comparable but rather later two-spouted vases from the Delphi tomb-group already referred to,[72] and from Athens.[73]

LARGE VASE WITH ADDED WHITE DECORATION

256 bis. PLATE 11 *c.* Fragment of krater rim. D. *c.* 0·36.
Brick-red gritty clay. Dull red glaze; inside and top of rim reserved. Round the neck a narrow white band and a chain of white buds; the stalks are painted, not incised.

LARGE PAINTED POTS

The level of the well contained several fragments of large vases, probably kraters, of a well-fired light-brown or red clay, decorated with dull dark-brown glaze and white paint.

The following pieces are illustrated:

257. PLATE 12 *d.* Fragment, probably from upper part of vase. Narrow white lines on broad brown band.

258. PLATE 12 *d.* Fragment of rim, with projecting ridge for lid. D. *c.* 0·14.
White horizontal lines on dull black glaze.

259–264. PLATE 12 *d.* Fragments of bodies. Brown glaze ivy wreaths; the berries on no. 262 are added in white paint.

265. PLATE 12 *d.* Fragment of high foot. D. *c.* 0·26.
Similar.

A few similar pieces were found at Antioch.[74] Mr. J. M. Cook has kindly called my attention to fragments of a fabric strongly resembling this which were found in fifth-century contexts at Old Smyrna. These have stiffer, clumsier ivy wreaths, and show a more lavish use of white paint; but they almost certainly belong to ancestors of our pots. Since this fabric is entirely absent from our earlier levels, it is unlikely to be Chian; its home is probably somewhere on the west coast of Asia Minor.

---

[71] Boehringer and Krauss, *op. cit.*, pl. 57 *h.* 2.

[72] Perdrizet, *FdD* V 173, fig. 730. It seems probable, as M. Perdrizet (*ibid.* 172) says, that the Hellenistic vases from this tomb form one group, whatever the circumstances in which they found their way there. There is an earlier vase of this type, with better glaze but somewhat similar decoration in the British Museum (*BM* 86. 3–10, 18, from Karpathos). I would rather regard them as small decanters than as lamp-fillers.

[72] Perdrizet, *op. cit.* 173, fig. 731.

[73] Watzinger, *op. cit.* 83, no. 33.

[74] Waage, *op. cit.*, fig. 8, nos. 17, 19 and (more especially) 20.

LAMPS

266. FIG. 7; PLATE 9 *e*. H. as preserved 0·03. Greatest D. without nozzle 0·08.

Restored from fragments; foot and large parts of the body missing; nozzle broken. Grey clay. Outside covered with black glaze, much worn.

Type IX.[75] At Athens Type IX had already passed out of favour by the time of Thompson's Group C.[76]

267. FIG. 7; PLATE 9 *e*. H. as preserved 0·03. Greatest D. without nozzle or handle 0·075.

About half body, restored from fragments, base lost, nozzle and handle broken. Grey clay. Dark-grey glaze very badly worn on outside. An early undecorated example of Type XIII.[77] It seems to be a little earlier than the first lamps of this kind found at Corinth, which supports the view that the type originated in the eastern Aegean area.

268. PLATE 9 *e*. Miniature lamp. H. 0·023. D. 0·044.

Complete. Light-red clay, unslipped and unglazed. Profile like no. 269, but with a wider lip.

269. FIG. 7; PLATE 9 *e*. Miniature lamp. H. 0·019. D. 0·04.

Complete. Light-red clay, unslipped and unglazed.

Counting fragments there were at least thirty similar small lamps in this deposit. They had been used, as the nozzles of most showed signs of burning.

CHIAN AMPHORAE

270. This level contained a vast number of pieces of smashed wine amphorae, none of which could be reconstructed. The count of feet of Chian amphorae was as follows:

Like FIG. 9 *d*	One	These are evidently intruders and not to be dated by their context.
FIG. 9 *e*	Four	
FIG. 9 *g*	Three	
FIG. 9 *h* and *i*[78]	Five	
FIG. 9 *j*	One	
FIG. 9 *k*	Twenty-eight	
FIG. 9 *l*	Eleven	
FIG. 9 *m*	Twelve	
FIG. 9 *n*	Fifteen	
FIG. 9 *o*	Four	
FIG. 9 *p*	One	

Very many fragments of necks and handles were found. The following pieces illustrate the most common types.

271. FIG. 8. Upper part of neck with springs of handles. External D. of mouth 0·12.

Well-fired light-red smooth clay, unslipped and unglazed.

272. FIG. 8. Fragment of neck.

Similar fabric.

273. FIG. 8. Fragment of neck.

Similar fabric.

FOREIGN AMPHORAE

274. The count of feet was as follows:

FIG. 10 *d* (Kos)	Nine
FIG. 10 *e* (Knidos)	Three
FIG. 10 *f* (Mende?)	Two
FIG. 10 *g*	One
FIG. 10 *h*	One
FIG. 10 *i*	One
FIG. 10 *j* (Rhodes?)	Seven
FIG. 10 *k*	One
FIG. 10 *l*	One
FIG. 10 *m*	Two
FIG. 10 *n*	Four
FIG. 10 *o*	Eight
FIG. 10 *p*	One

275. FIG. 10. Fragment of neck and handle of Rhodian amphora. D. of mouth about 0·13.

Smooth light-brown clay. On the top of the handle a stamp (to be published separately).

276. FIG. 10. One handle and part of neck of Coan amphora. D. of mouth 0·124.

Light yellowish clay. Double-rolled handles.

---

[75] Broneer, *op. cit.* 47 ff. Fairly early in the third century.

[76] Thompson, *op. cit.* 461.

[77] Named 'the Cnidus type' by Walters, *Catalogue of the Greek and Roman Lamps in the British Museum* (nos. 350–89).

[78] These are the same type; the toe was made in a separate piece and sometimes broke off.

277. FIG. 10. Fragment of lip of amphora with spring of handle. Internal D. *c.* 0·10.
278. FIG. 10. Fragment of lip of amphora. Internal D. *c.* 0·10.
Nos. 277, 278 are perhaps derived from the type represented by our no. 182 *bis*.

Miss Virginia Grace, who very kindly came to Chios to examine our material, gave me very great help in studying these amphorae. My attributions of different types of feet to different cities are based upon her advice. See her article in *Hesperia* III 202, ' Stamped Amphora Handles found in 1931–2 ', fig. 1, nos. 6 and 7 for Cnidian amphorae; *ibid.*, pl. 2, nos. 4 and 5, for Rhodian handles of the third century; *ibid.* 202, fig. 1, no. 5, for a Rhodian amphora of the early third century (mouth and one handle lost). *Cf.* also *Hesperia* Suppl. VIII.

A remarkable photograph of a wine-cellar full of Rhodian amphorae is published in *Clara Rhodos* I 86, fig. 67.

LARGE LAGYNOI

279. FIG. 17. Neck with upper part of handle. D. of mouth 0·04.
Light-red clay, unslipped and unglazed. A taller thinner neck than no. 183.
280. FIG. 17. Handle from similar lagynos.
281. FIG. 17. Foot of a closed vessel of a similar fabric. D. of foot-ring 0·08.

While it is by no means certain that this foot does in fact belong to a lagynos, the numerous fragments of bodies of lagynoi, or at any rate of closed pots smaller than amphorae but made of a similar fabric, seem all to come from vessels with flat feet something of this shape. They probably stood about eighteen inches tall and had high, rounded shoulders. This level of the well contained very many fragments of necks and handles, none of which were stamped, though a handle picked up on the surface about a hundred yards east of the area of excavation was stamped MEN. All were of the tall, narrow sort represented by no. 279, which seems to have completely replaced the type of our no. 183 during the period between the formation of the second deposit in the well and its final filling in. The word *lagynos* is discussed by Laroux, *Lagynos* 73 ff. The use of the same word for these large containers (holding, as far as could be guessed, about half as much as a Chian amphora of the period) and for small decanters like our nos. 254, 255 seems to be justified by reference to ancient authors. The people of Alexandria, in the festival described in Athenaeus VII 276, ' ἐξ ἰδίας ἕκαστος λαγύνου παρ' αὐτῶν φέροντες πίνουσιν ', which suggests a fairly capacious bottle, though not, of course, one too big to be carried when full. The Latin authors still more clearly mean a ' big-bellied bottle '.[79] Horace and Martial found a lagynos too big to finish at one sitting, and had to seal it up between times as a precaution against the servants.[80] Indeed, it might be more in accordance with ancient usage to describe the smaller vases of this shape as *lagunculae*, fit only for the table of a man *ut sibi videbatur lautum et diligentem, ut mihi, sordidum simul et sumptuosum.*[81] Still more to the point is a passage from Plautus [82] to which my attention was called by Miss Grace: *quasi tu lagenam dicas, ubi vinum solet Chium esse*—said of an old woman—*multibiba atque merobiba.* Probably vessels like our nos. 279–81 were used for the export of Chian wine.

They are hardly likely to have been refilled again and again as the ἀρχαίη σύμπλανος of Marcus Argentarius presumably was. More probably their fate was that of another lagynos mentioned by the same author: [83] Τηλόθε γὰρ λίθος εἰς σὲ βαρύστονος, οἷα κεραυνὸς, οὐ Διὸς ἐκ χειρῶν, ἀλλὰ Δίωνος ἔβη.

---

[79] Juvenal, *Sat.* XII 60 *cum ventre lagoenae.*

[80] Horace, *Ep.* II 2, 133–4, . . . *posset qui ignoscere servis et signo laeso non insanire lagoenae.* Martial IX 87, 7 *nunc signat meus anulus lagoenam.* *Cf.* also Cicero's account of his mother's economies (*Ep. Fam.* XVI 26, 2). These seals have, of course, nothing to do with stamps on the handles of jars.

[81] Pliny the Younger, *Ep.* II 6, 2.

[82] *Curc.* I i 78.

[83] *Anth. Pal.* VI 248 and IX 246, quoted by Leroux *op. cit.* 76–7. Note also the inscription σύνπλανος on Leroux's no. 133 *a.*

The high price of Chian wine may have made it convenient to sell it in smaller containers as well as in amphorae.

Flat-bottomed round-shouldered tall-necked water jars with single handles are made in great numbers in Chios today. They are called *Bourboula* because of the gurgling noise caused by pouring from them. Ancient lagynoi also gurgled *aux glouglous humides* (Leroux, *ibid.*). I would like to believe that they have been made in the island ever since Hellenistic times, but cannot prove it.

The word *lagynos* need not be confined to vases of one particular size (Leroux, *op. cit.* 81). Probably it was no more restricted in its meaning than is the word ' bottle ' today.

KRATERS

282. PLATE 12 *c*. Fragments of a large column-krater with stamped and relief decoration. Diameter uncertain.

Light-red clay, unslipped and unglazed. Round the body ran a chain of stamped horseshoes with beaded edges; above and below this were narrow incised lines; below all, a row of small circular punch-marks. One fragment, which is perhaps not from the same vase, though the width of the rim is the same and the use of the same stamp shows that it must be from the same workshop, has a bull's head stuck on below the rim. This must have been made by hand: the ears were added separately and the eyes and other details added with a pointed stick. On each side of the head is an oval made of two of the beaded horseshoe stamps set back to back; outside these ovals were more beaded horseshoes. Below the bull's head is a row of plain horseshoe stamps, and below that again a row of small circular punch-marks.

The column-krater is rare in the Hellenistic period but not absolutely unknown.[84] I do not know an exact parallel to our vase.

283. Several fragments, probably of kraters, with their insides deeply scored with horizontal and vertical striations. Compare Thompson's A.63, C.68, E.122, and nos. 28, 79, 85 above.

LARGE BASINS

284. FIG. 5; PLATE 11 *d*. Fragment of rim with handle. D. *c*. 0·28.

Light-red clay, unslipped. Traces of black paint band round the inside. Horizontal strap handle.

This is the type most commonly found in this deposit.

285. PLATE 11 *d*. Fragment of rim with handle. D. *c*. 0·30.

Light-red clay, unslipped and unglazed. Horizontal strap handle squashed flat under the rim.

Our series nos. 185, 284, 285 shows a progressive degeneration of the handle. No. 185, being from a lower deposit, is certainly earlier than the others, but it would be dangerous to try to set up a chronological sequence in which the form of the handle was the sole criterion.

286. FIG. 5. Large basin. H. 0·12. D. 0·56.

Restored from fragments; centre of floor and part of side lost. Light-red clay; surface very badly worn and flaked.

287. FIG. 5. Fragment of large basin. H. 0·158. D. of base *c*. 0·26.

Light-red clay, unslipped and unglazed. This type, with flat base, sloping sides, and slightly flaring rim, first appears in this level. It had a loop handle rising from the top of the rim (PLATE 11 *d*). The fragments found represent about five basins.

STONEWARE BASINS

288. FIG. 6. Fragment giving complete profile. H. 0·055. D. *c*. 0·38.

Light-brown gritty clay, unslipped and unglazed.

289. PLATE 11 *d*. Fragment of rim with knucklebone handle. D. *c*. 0·30.

Very gritty red-brown clay.

290. PLATE 11 *d*. Spout. Diameter of rim uncertain.

White smooth clay. A flattened pellet of clay is stuck on to the rim just to the left of the spout.

These basins are forerunners of Thompson's E.124.[85] But the difference in the rims is obvious enough. I do not want to assert positively that they were made at the same place.

---

[84] *E.g.* Boehringer and Krauss, *op. cit.*, pl. 59 *a*, a large column-krater in the white-slipped, painted ' Pitane ' style. Another white-slipped example from Delos is Leroux, *Lagynos* 55 and 56, no. 107.

[85] *Op. cit.* 416, fig. 102.

COOKING-POTS

The cooking-pots from this level were mostly of the same types as those from the last. One slightly modified form of the open stewpan makes its appearance.

291. FIG. 12. Stewpan with wide projecting rim. H. 0·065. D. *c.* 0·34. Fragment, giving complete profile. Coarse gritty clay, blackened by fire. There is a distinct increase in the proportion of height to diameter.

292–5. Not illustrated. Several fragments of large braziers.

For a complete brazier of Late Hellenistic date see Thompson's E.150 (*op. cit.* 420, 421, figs. 108, 109).

TERRACOTTAS

296. PLATE 13. Head of an old man. H. 0·105.

The lower part of the face, especially on the left side, is much damaged. Light-brown clay. Traces of white paint, especially under the eyebrows and below the right ear. The piece is not moulded but freely modelled. The hair is piled on top of the head and secured by a broad strip of cloth, fastened in a knot in front. The forehead is deeply lined; the eyebrows heavy and contracted; the eyes open but unseeing. The cheeks are heavily lined with great hollows below the eyes; the mouth is open and working like that of a man who speaks under the influence of strong emotion. The chin and the lower part of the beard are broken.

I would willingly believe that the subject is Homer, but can find no evidence to support this view, apart from the discovery of the piece in one of the poet's seven homes. It bears little resemblance to such officially recognised ' portraits of Homer ' as I have examined; but perhaps in the first half of the third century [86] no types were yet generally established. It is, at any rate, as likely as any of the others to resemble Homer himself.

297. Fragment of nude female figure.

The upper part of the body and the arms only are preserved. The body is naked, but over the left shoulder is flung a cloak which billows out behind in the wind; the right hand is raised to catch it at the edge. The body is worked in high relief against the cloak. It may have been mould-made, but if so the head must have been made separately, or it would never have come out of the mould. The cloak forms the top of a shallow vessel about 2 cm. deep; the lower part is undecorated. Probably the original was shaped somewhat like an askos, with a spout below the figure's feet.

Smooth light-brown clay.

298. Fragment with palmette and tendril.

Dark-brown gritty clay. Much earlier than the other pieces from this context. Compare no. 106 above.

299. Fragment of satyr's face. Traces of red paint on the hair.

300–304. Fragments of draped female figures. Nos. 300, 301 show traces of white paint.

305. Part of small bowl with lion's head spout. Compare Thompson's D.13.

306. Two fragments of figures of lions, showing parts of mane and forequarters.

307. Part of the hindquarters of a seated lion.

All these pieces except no. 305 were probably made in moulds, the details being touched up afterwards.

MISCELLANEOUS SMALL FINDS

308–312. FIG. 23. Bone knobs or buttons of uncertain purpose.

No. 312 may be an unfinished string-twister; it lacks the necessary hole through the middle.

313. This level contained a great number of large sherds, usually from amphorae, often the feet or handles, with every surface worn round and smooth as though by the action of water. Many similarly worn sherds were found scattered throughout the surface levels. While it is conceivable that some of these last were worn by the natural process of weathering, those in the well must have found their way there within comparatively few years of being broken, and were found together with similar sherds which were completely unworn. It seems, therefore, most probable that these sherds had been used as rubbers in some industrial process. Mr. Nicholls suggests tanning, and I believe that this is probably correct, though I can find no passage in any ancient author to show that potsherds were used in dressing hides.[87]

THE DATE OF THE SUCCESSIVE DEPOSITS IN THE WELL

Unfortunately none of the objects from the well carries its own date about with it like a coin,[88] nor can these successive dumpings of rubbish be associated with any known historical event. For our absolute dates we must therefore rely on comparisons with other sites. By far the most valuable evidence is provided by Professor Thompson's series of groups from the Athenian Agora, and the dates given below indicate the relation of our groups to his rather than any definite fixed point in time.

[86] The date of the deposit is discussed below.

[87] On the subject of Tanning, see Mau in *RE s.v.* ' Coriarius '.

[88] The stamped amphora handles may be regarded as an exception. I believe that Miss Grace's chronology agrees substantially with mine.

The Lowest Deposit.

There are obvious parallels between the finer pieces from the bottom of the well and the latest vases from Olynthus; but, as has already been observed, imported Attic pottery seems to have been carefully looked after and to have enjoyed a long life in Chios. The rough pottery looks rather later, but not as late as Thompson's Group A; the end of the third quarter of the fourth century B.C. seems a probable date.

The Second Deposit.

The quality of the black glazed pottery deteriorates. Many of the shapes are like pieces from Thompson's Group A; the lamps also resemble lamps in this group, and there is nothing in the rough pottery which must of necessity be much later. A date about the turn of the fourth and third centuries would leave about a generation between this deposit and the last, which seems a sufficient interval to account for the differences between them.

The Third Deposit.

The complete absence of 'Megarian Bowls' forbids us to regard this group as being as late as Thompson's Group C.[89] But the West Slope ware from this level is nearer that from Group C than that from Group B, though the closest parallels are to be found in neither. The lamps also seem to come in the gap between the two groups, though there are too few of them to provide a really certain standard for fixing the date of the rest of the pottery. Many of the small half-glazed pots are very debased—indeed more debased than anything published by Thompson—but this seems to be a sign of provinciality rather than lateness. Ordinary common sense would suggest that the well was unlikely to have been left half-filled for any very great length of time. It seems best therefore to disregard the degenerate appearance of the rough pottery and fix the date at about 275–250 B.C.

VIII. THE GRAVE GROUPS[90]

GRAVE 1.[91]

Shallow unprotected[92] inhumation of adults. The same grave had been used for two burials, the second corpse being laid on top of the first. The skulls were almost touching, and the arm of the second appeared to embrace the first. Both bodies lay at full length, heads to north. The following grave goods were found.

314. FIG. 18. Small clay bottle. H. 0·089.
Light-brown clay, unslipped and undecorated.
315. FIG. 18. Small clay bottle. H. 0·079.
316. Bronze coin. Ionia-Chios 190–84 B.C.
Æ 11 ↗ Obv. Sphinx r.
Rev. AP[Γ?]E [XIOΣ] Amphora.
Num. Chron. 1916, 355.

All these were close to the head of the upper corpse, to which they evidently belonged.

317. Not illustrated. Two fragments, being the upper part and foot of a small scent bottle of the type of no. 325 below. There were no other fragments in the grave. The two pieces had been carefully placed upon the body of the lower corpse. Obviously the bottle, belonging to the lower burial, had been broken when the grave was opened for the second corpse, the principal pieces being afterwards replaced in order to do as little violence to the dead as possible.

---

[89] Megarian Bowls may very probably have appeared later in Chios than in Athens, but the imitation of Attic shapes and the actual presence of imported Attic pieces show that, though Athens set the fashion, Chios followed not far behind.

[90] Mrs. Varoucha-Christodoulopoulou very kindly cleaned and identified the coins.

[91] See Plan (FIG. 3) for position of graves.

[92] No traces of wood or covering was found for any of the bodies described as 'unprotected'. The absence of nails makes wooden coffins unlikely.

GRAVE 2.

Unprotected inhumation, probably of adult. The head only was excavated, during the process of clearing the ground above the well in Trench A; the body was under an olive tree. Being about two feet deeper than Grave 1, and almost directly under it, it was certainly earlier.

318. Bronze coin. Elaea(?).
Æ 15. Obv. Head of Persephone.
Rev. Worn.
Probably the same type as no. 338 below.

GRAVE 3.

At the north end of the large stony pit in Trench A. Shallow unprotected inhumation of young person or small adult. The body was extended on its back, arms by its sides, head to east. Near the right foot were fragments of two small perfume bottles of the type exemplified by no. 323 below. These had probably been broken in the course of agricultural operations, which had disturbed the grave considerably.

GRAVE 4.

This grave was covered by a sharply-sloping roof formed of six large gutter tiles, leaning against one another in pairs, like sheaves in a stook of corn. (Compare Grave 12, PLATE 15 *b*.) Adult burial; the body on its back, hands by its sides, head to north. The following grave goods were found at the feet.

319. FIG. 18. Small perfume bottle. H. 0·073.
Light-brown clay, unslipped and unglazed.

320. FIG. 18. Small jar. H. 0·074. D. of rim 0·057.
Light-red clay, fine fabric. The upper part of the outside covered with metallic black glaze. The shape is related to that of no. 21 from my excavation at Keryneia [93] but is taller. Moreover, this vase is without relief decoration.

GRAVE 5.

To the north of the red earth. Shallow inhumation of adult. Covered with tiles, but the whole grave, being just under the surface, had been much disturbed in the course of agricultural operations. Most of the tiles had been removed leaving only large fragments scattered irregularly upon the body. Body disturbed; head to south. No grave goods.

GRAVE 6.

Inhumation of adult. Directly under Grave 5 and about a metre deeper. Body on back: arms by sides; head to south. No grave goods, unless a large pyramidal loom-weight found near the head had been placed there deliberately.

GRAVE 7.

South-west of Graves 5 and 6. Adult burial; unprotected. Disturbed by a large modern pit. Head to west. The only grave find is a broken perfume pot of the type exemplified by no. 323 below.

GRAVE 8.

West of Grave 5 and 6. Child's burial; from the objects found probably a girl. Unprotected, but deep and therefore undisturbed. Body on back; head to south. The following grave goods.

---

[93] *BSA* XLVIII 160, fig. 3.

321. PLATE 14 *a*. Bronze spatula. L. 0·14.
In fairly good condition; covered by thick crusty green patina.
322. PLATE 14 *a*. Small bronze perfume bottle.
The neck only preserved; shape apparently similar to no. 319 above.
These two objects were found together near the left thigh.
323. FIG. 18. Small clay perfume bottle. H. 0·168.
Bright red clay, unslipped and unglazed. Placed horizontally across the feet.

GRAVE 9.

South of Grave 7. Unprotected adult burial. Body on back; arms by sides; head to west. A firm bed for the body had been made with large stones, probably taken from the stone structure immediately to the south of the grave. This bed filled in one side of the rock-cut pit on the north side of the grave, which must thus have been earlier in date. It did not contain anything except dark earth and a few unidentifiable sherds. The following grave goods were found.

324. PLATE 14 *a*. Small bronze mirror. D. 0·105.
A plain disc of thin bronze, broken into six pieces. Probably once carried in a wooden case. Thick crusty green patina. Found at the feet of the corpse.
325. FIG. 18. Small clay perfume pot. H. 0·18.
Coarse brown clay, unslipped and undecorated.
326. FIG. 18. Small clay perfume pot. H. 0·195.
Similar fabric.
These two pots had been laid diagonally along the two collar-bones.

GRAVE 10.

In the north-east corner of the western large trench. Adult inhumation; unprotected but very deep. Corpse on back; arms by the sides; head to north. The following grave goods were found.

327. FIG. 18. Small perfume bottle. H. 0·165.
Light-brown clay, unslipped and undecorated.
328. FIG. 18. Small perfume bottle. H. 0·21.
Similar.
These two were lying across the feet of the corpse.
329. FIG. 18. Large perfume bottle. H. 0·24.
Fabric like no. 327.
Lying diagonally along the left collar-bone.
330, 331. PLATE 14 *a*. Two small gold ear-rings. D. 0·02.
Fine gold wire. Round about one-third of the circumference of each is a binding of fine wire. The unbound part is divided by a double twist into two parts, one about half as long as the other; on the shorter part is a small white paste bead.
One was found on either side of the head.
332. Not illustrated. A few scraps of gold leaf, from a wreath round the head.
333. Bronze coin. Roman Republic.
Æ 14 ↓ Marcus Porcius Cato (B.C. 90?).
Obv. Young head r. crowned with ivy wreath. M. CATO (AT ligature).
Rev. Victory seated r. In exergue VICTRIX (ligature of T and R).
BMC II 304, pl. XCV 17.
In the mouth.

GRAVE 11.

West of Grave 10. Unprotected adult burial, presumably young man. On back; hands by sides; head to north. The following grave goods.

334. FIG. 18. Iron strigil. Greatest L. 0·23. A flat bar of iron 0·03 m. broad and 3 mm. thick, hammered out into the required shape.
Very badly rusted and broken into several pieces.
Although bronze strigils of somewhat similar form are common, iron ones are rarely found, perhaps because the metal perishes more easily.
335. FIG. 18. Iron bracelet. D. 0·11.
A thick piece of iron wire with the ends beaten out flat. Less corroded than no. 334 and in one piece.
Nos. 334 and 335 were found together near the right thigh, the strigil being passed through the bracelet.

336. FIG. 18. Small perfume bottle. H. 0·165.
Light-brown clay, unslipped and undecorated.
Near the left shoulder.
337. FIG. 18. Small perfume bottle. H. 0·20.
Similar.
Above the head to the left.
338. Bronze coin. Elaea, Aeolis.
Æ ↗ Obv. Head of Persephone r., border of dots.
Rev. [E]ΛA Torch. The whole in wreath.
ΩN
BMC Troas etc. 126 f., pl. XXV 12. *Coll. Weber* 5551, pl. 199.

Head (*HN*² 555) assigns this coin to the Imperial period, but Mrs. Varoucha-Christodoulopoulou tells me that it could, on stylistic grounds, be assigned to the pre-Imperial period, after 133 B.C. This view is supported by a consideration [94] of the pottery from this grave.

Above the head to the right.

GRAVE 12.

PLATE 15 *b*, *d*. South of Grave 11. Adult inhumation, protected by roof of large flat gutter tiles like Grave 4. Body on back; hands by sides; head to east. The following grave goods.

339. Not illustrated. Small bronze mirror. D. 0·11.
Similar to no. 324. Broken.
Below the right foot.
340. FIG. 18. Small perfume bottle. H. 0·135.
Coarse red clay, unslipped and undecorated.
341. FIG. 18. Small perfume bottle. H. 0·18.
Similar.
342. FIG. 18. Small perfume bottle. H. 0·14.
Similar.

Nos. 340, 341, with another broken one, were in a heap below the feet; no. 342 was by the right thigh; another broken one was near the right knee.

GRAVE 13.

A large limestone sarcophagus. PLATE 15 *a*, *c*. H. (without lid) 0·80. L. 2·02. W. 0·81. The inside had apparently been lined with wood, which in rotting produced the discoloration of the stone visible in PLATE 15 *c*. The bones inside, which came from two skeletons, were in considerable confusion; the heads were at the east end. A quantity of earth and a few sherds had filtered in under the lid. The grave goods were as follows.

343. PLATE 14 *b*. Small clay perfume bottle. H. 0·095. Restored from fragments.
Light-brown clay, unslipped and unglazed. The mark on the side of the neck is caused by the adhesion of an iron nail.
344. PLATE 14 *b*. Small clay perfume bottle. H. 0·115. Unbroken.
Similar fabric.
345. PLATE 14 *b*. Small glass perfume bottle. H. 0·105.
Opaque green glass; the outside flaky and opalescent.
346. PLATE 14 *a*. Bronze pin from wreath. L. 0·075. Broken into two pieces.
Fragments of the leaves which formed the wreath are still adhering to it. Found near one of the skulls.
347. PLATE 14 *a*. Silver ring. D. 0·017.
Made of round-sectioned silver wire. One side hammered out to form a bezel.
348. PLATE 14 *a*. Bronze ring. D. 0·015.
Small bezel containing a white paste imitation gem.
348a. PLATE 14 *a*. Bronze ring. D. 0·017.
Made from a thin flat strip of bronze; broken.
349. PLATE 14 *a*. Bronze ring. D. 0·018.
350. Numerous iron nails similar to no. 361 below; apparently these had secured the wooden lining.

The grave in which the sarcophagus stood had been cut through a number of earlier burials. Fragments of bone belonging to these bodies were found projecting from the sides of the cutting.

---

[94] See below p. 164.

Grave 14.

To the south of the sarcophagus. Tile-covered [95] burial containing the remains of at least five skeletons. These were piled up in the utmost confusion, skulls being found at both ends and in the middle of the grave. At the eastern end of the grave had been laid the two small perfume bottles, which were the only grave goods.

351. PLATE 14 *b*. Small glass perfume bottle. H. 0·11.
Opaque green glass, the outside flaky and opalescent.
352. PLATE 14 *b*. Small glass perfume bottle. H. 0·085.
Similar.

The resemblance of these glass bottles to the one found in the sarcophagus makes it probable that this grave contained the remains of those whose bodies were disturbed when the grave for the sarcophagus was dug. These remains were reburied all together, and the bottles were placed in the grave as a peace-offering.

Grave 15.

Immediately west of the sarcophagus. Infant burial. The remains were enclosed in the bottom half of a large amphora (type not identified: not illustrated), and on top of this were placed the pieces of a second amphora (no. 353). Although this could be restored, several fragments were missing; moreover, the pieces were heaped one upon another, not neatly arranged as shown in the plan, though the neck was at the west and the toe at the east. It does not appear therefore that the amphora, when placed on the grave, was complete and unbroken. It was in any case below the ancient ground level, and so cannot have been intended to stand over the grave as a monument.

353. FIG. 19. Amphora. H. 0·975. Restored from fragments.
Double-rolled handles, rising into sharp horns at their corners; slim body with high sloping shoulders offset from the body and from the neck. Light yellow clay. Kos, first century A.D.
354. PLATE 14 *b*. Small clay perfume bottle. H. 0·09. Neck broken, but complete.
Light-red clay, unslipped and unglazed.

Grave 16.

South-west of Grave 15. Infant burial. A small cist made out of flat stones set on edge. No grave goods.

Grave 17.

At the bottom of a trial trench about fifty yards north-west of the group of graves 13–16. Unprotected adult burial; the body on its back, hands by the sides, head to west. No grave goods.

Although this grave was about seven feet below the present ground level when excavated, the earth above it had been deposited in recent times, as mediaeval glazed sherds were found in all levels except the very lowest. The depth of soil in antiquity is quite uncertain, but it seems likely that a great deal of earth has washed down from the top of Kofinà ridge in the past two thousand years.

The Date of the Graves

Small clay and glass perfume bottles like those from the sarcophagus and the graves near it were found at Priene in a grave which contained a denarius of Augustus dating from 2 or 3

---

[95] Not much earth had penetrated between the tiles. Thus when the west end of the grave was uncovered the eastern part formed a sort of tunnel; this was cleared from the western end in order to save the expense of digging down from above.

B.C.[96] Graves from Siphnos,[97] whose date is fixed by Flavian coins, contain glass bottles of a slightly different form, either with slight constrictions below the neck or with the neck hardly distinguished from the body. Compare also clay bottles like ours from Thera: [98] examples of Augustan date from as far afield as Haltern in Westphalia are mentioned as parallels. Our graves 13–15 must therefore belong to the early Imperial period.

The stratigraphical evidence from Grave 1 shows that clay bottles of this short type, without a foot, are later than those like no. 325, etc., while Grave 9 proves that this type, with wide foot and high sharp shoulders, is not far separated in time from the type with narrow foot and sloping shoulders represented by no. 326. The coin found in Grave 10 (no. 333) proves that this type must have been in use after the beginning of the first century B.C. As it is unlikely that the two burials in Grave 1 were separated by any great length of time, it would seem likely that the wide-footed type immediately precedes that represented by nos. 314, 315, 343, 344, and 354; it may therefore be dated in the second half of the first century B.C. The slim type with narrow foot may be a little earlier, though the two certainly overlap.

None of our graves seems to be earlier than the beginning of the first century B.C.

The coin no. 338 was found with bottles of the narrow-footed, round-shouldered type; it is therefore probably earlier than the Imperial period. No. 318, which, though worn, is probably of the same type, must have been buried before the 'Augustan' bottles in Grave 1; as it is worn, it probably circulated for some time first. (It does not, of course, follow that it was struck before no. 316.)

Our clay bottles do not follow the orderly development which has been traced by Thompson [99] from the beginning of the third to the end of the second century B.C. This may be because of their later date or because they were made in a different place.

There would appear to have been little change in Greek burial customs in the three centuries that divide the Olynthus cemeteries from ours (see Robinson, *Olynthus* XI). No gravestones were found, but some of those used in the Kastro as building material may have come from Kofinà.

IX. LATER LEVELS DISTURBED BY MODERN CULTIVATION

Although the pottery and other objects from these levels is naturally without stratigraphical significance, a brief description is necessary for the sake of completeness.

Hellenistic Red Glaze

About twenty-five fragments come from all over the site; they are of light yellow-brown non-micaceous fabric with light-red glaze. The pots had been dipped in the glaze, the characteristic thicker line down the middle being clearly visible on several of the sherds. Identifiable shapes include Waage's 112, 113, 123, 126, 132, and 144.[100]

Unidentifiable sherds of this fabric were in the fill of Graves 4, 11, and 12.

Roman Red Glaze

About fifteen fragments come mainly from the trial trenches on the west and north, but two or three from the surface above the red earth.

---

[96] Wiegand and Schrader, *Priene* 277 ff., especially figs. 286, 290.

[97] G. M. Young, *BSA* XLIV, especially Grave no. 14 (p. 88).

[98] *Thera* II 283, fig. 280 *d*, and p. 284, n. 15.

[99] *Op. cit.* 472–4.

[100] See Waage, *op. cit.*, pl. 3, 4.

They have a darker clay, covered with a hard dark-red glaze. The dipping line is not visible on any of the fragments found. Identifiable shapes include Waage's 405, 455, 460, 467.[101]

Megarian Bowls

They are very frequent all over the excavated area; two or three in the fill of graves, but mostly in surface levels. All the sherds illustrated (PLATE 14 *d*), and almost all those found, were of a grey fabric similar to that of the Grey Ware from the well. Glaze is usually black, sometimes dark grey, always matt, but this may be the result of weathering. They have low, plain, slightly inturned lips, feet usually flat and decorated with rosettes, but one example (right of fifth row) has a splayed ring foot. Decoration is usually floral, but two fragments (third row) show the heads and bodies of soldiers, one of whom is blowing a horn. On the piece at the right of the bottom row a pair of feet is visible; its base is plain, and a φ has been incised upon it.

The great number of sherds of Megarian Bowls found shows that their absence from the well is not due to their being disliked in Chios.

Half-glazed Ware

Several fragments of small plates were found. Some of the more complete ones are illustrated for the sake of comparison with those from the well.

355. FIG. 15. About one quarter of plate. H. 0·026. D. *c.* 0·15.
Coarse red clay covered with thin red glaze. From below Grave 15.
356. FIG. 15. About one quarter of plate; foot-ring broken. H. as preserved 0·025. D. *c.* 0·15.
Red-brown clay. Inside covered with thin cream-coloured wash; outside reserved and burnt in places.
From above the stone structure to the west of the red earth.
357. FIG. 15. About one quarter of plate. H. 0·027. D. *c.* 0·16.
Red-brown clay. Unglazed; slightly burned on outside. Surface find.

Lamps

358. FIG. 7; PLATE 9 *e*. H. as preserved 0·03. D. 0·044. Restored from fragments; base and spout lost; handle broken.
Light-grey clay. Dark-grey glaze; upon the shoulder small rosettes. Mould made. Type XIX.[102] Early examples of this type were found in Thompson's Groups C and D.[103]
359. PLATE 9 *e*. Part of discus of Roman lamp.
Naked boy standing right with cloak over his left arm. Very light-brown clay. Antonine period.
Both these lamps were found under the slight stone foundation on the south side of the red earth.
360. PLATE 9 *c*. H. 0·019. Greatest D. without spout 0·058.
Light-brown clay. Found in the fill of Grave 4, but outside the tile covering. It cannot be later than the grave, but is probably not to be associated directly with it.

Archaic and Classical Pottery

Archaic sherds, mostly from large white-slipped vases like nos. 17–34, or from small chalices, were scattered about the whole of the eastern part of the excavated area. The pieces which deserved illustration have already been discussed. There were also a fair number of Attic black glaze sherds of the classical period. Four archaic *bucchero* sherds, one being part of a kantharos with high, upswung handles, were probably imported from Lesbos.

---

[101] Waage, *op. cit.*, pl. 4, 5.
[102] Called by Walters, *op. cit.* nos. 326–49, the Ephesus type.
[103] C. 60, D. 61.

Miscellaneous Small Finds

361. fig. 23. Iron nail. Original L. 0·10.
Square cross-section; large head; bent at right angles.
362. fig. 23. Bronze nail. Original L. *c.* 0·09.
Slightly bent; large head; round cross-section.
363–5. Fig. 23. Gaming counters. Ordinary potsherds cut into rough discs.

Nos. 363 and 365 are Attic with black glaze of good quality on both sides. One side of no. 363 has been left black, and the glaze on the other (that shown) has been roughly scraped away to leave a red spot. The scraping of no. 365 has been more neatly managed, and there is a red spot on one side, a black spot on the other. No. 364 is one of a number of counters cut from pieces of Naucratite chalices; one side is dark and the other light. These counters were probably made from chance-found sherds during the late Hellenistic period.[104]

They may have been used in the game of ὀστρακίνδα described by Pollux.[105] Dindorf, in his note on this passage, mentions an '*ostracindam hodiernam apud Belgas*', but there is no need to look abroad for parallels; see Strutt, *Sports and Pastimes of the People of England* IV 2, 26, *s.v.* 'Cross and Pile': 'a silly pastime, well enough known among the lowest and most vulgar classes of the community . . . Edward II was partial to this and suchlike frivolous diversions.' The ancients called 'night' and 'day' instead of 'heads' and 'tails'.

366. fig. 23. Fragment of terracotta shield.
Light-red clay, the outside covered with a white slip upon which a blazon (not now recognisable) was painted in red. The photograph shows the inside, with part of the πόρπαξ. See Davidson, *Hesperia* XI 120 ff., for a remarkable group of similar shields, dating from the third century, found at Corinth.
367. fig. 23. Arm of jointed doll.
Jointed dolls are discussed by Elderkin in *AJA* XXXIV 455 ff. and by Mrs. Thompson in *Hesperia* Suppl. VII 114 ff.
368. fig. 23. Leg of terracotta chair or stool.
369. plate 11 *c.* Fragment of rim of krater. Diameter uncertain.
Bright red clay. Good black glaze. On the top of the lip, a wave pattern; round the neck an ivy wreath. Early Hellenistic. The wreath and wave pattern resemble those on Breccia, *op. cit.* 184, fig. 115, no. 602.

SUMMARY

Notes on Various Hellenistic Fabrics

This is no more than an attempt to sum up what is apparent from a glance at the various figures. I have added a few references to other sites, but have not attempted a complete list of all pots which are like any of ours. Hellenistic half-glazed bowls and plates which strongly resemble ours have been found on a great many sites and must have been made in a great many places, but a close first-hand study of the material would be necessary to determine what are the various local fabrics and whether (as I strongly believe) much of the better half-glazed pottery was exported from one centre of manufacture. Moreover, few of the published pieces are closely dated. They do not, therefore, help much in considering chronological development. The various fabrics are discussed in the same order as they appear in the catalogue.

Grey Ware

The grey fabric represented by our nos. 151, 152, 198–211, and the lamps nos. 266, 267, 358, appears in Chios at about the beginning of the third century B.C., but does not become common before the time at which our well was finally filled in, about a generation later. The fabric of the best examples is quite distinctive, but the potters were content to copy the shapes of Attic black glaze. Our grey ware may well be related to the Late Hellenistic grey ware found at Athens;[106] this copies the shapes of the better-known red-glazed pottery. It probably comes from somewhere in Asia Minor. Mr. Dunbabin has shown me sherds picked up on the site of Gordium which seem to be midway in date between our pieces and Thompson's.[107] Note also the *Schwarzgraue firnislose Stempelware* found at Pergamon.[108] There seems to have been more than one place of manufacture; the highly micaceous grey plates from Priene[109] are probably of a different fabric. Zahn notes the similarity of their clay to that of some of his pieces of Megarian bowls; the fabric of our Megarian bowls also strongly resembles that of our grey ware.[110] The probability seems to be that the potters of Asia Minor imitated, not unskilfully, the various products of European Greece, but did not know the trick of firing their clay red.[111] A connection with the *bucchero* of the Archaic period, hinted at by Miss Lamb in *JHS* LII 3, n. 10, seems probable but cannot yet be proved. See also Waage, *op. cit.* 59-60.

---

[104] Compare similar counters from Pergamon, Boehringer, and Krauss, *op. cit.*, pl. 60 p, nos. 10–12.
[105] *Onomasticon* IX 110, 111 (ed. Dindorf).

HALF-GLAZED WARE

A distinctive series of half-glazed plates begins with our nos. 153–5. These are quite shallow; the underside of the floor within the base-ring is flat; the rim is usually slightly thickened and undercut on the inside, though no. 153 has a rim which seems related to that of saucers like our no. 146. The glaze, though not comparable to Attic black glaze, is good of its kind. There is never any stamped or rouletted decoration.

In the next level of the well in Trench A (nos. 212–16) the depth of the plate increases. To obtain this increased depth the potter seems to have pressed down upon the centre of the floor, so that its underside is no longer flat (our no. 212 has the pressed-down floor without the increased depth). The thickened, undercut rim is still the rule, but the rim of some of our later pieces turn outwards and droop; they do not, however, approach Waage's Shape 17.[112] The foot-ring is rather more widely splayed than that of the earlier plates. The quality of the glaze deteriorates; indeed, quite a lot of fragments from the upper level of the well were unglazed.

Plates of this sort continued to be made for more than a century; compare our no. 214 with Thompson's E.1. E.1 seems to be rather earlier than some of the other pottery in the group. Thompson notes[113] that similar plates had been found in pits under the Stoa of Attalus. They were also found at Antioch, but rarely.[114] Note also Blinkenberg, *op. cit.* no. 3150. A second-century variation from Crete has a down-turned rim like a fishplate.[115] Rims like those of our nos. 355–7 do not seem to appear in the Early Hellenistic period: with nos. 355–6 compare Thompson's E.19 and E.21. No. 357 is probably Roman.

Bowls with out-turned rims are discussed by Thompson, *op. cit.* 435. Our better examples do not show any very marked chronological development (note, however, that no. 194 has a much smaller foot-ring than nos. 120 and 145), but the contrast between these better pieces and the cheap local products is ludicrous; note especially nos. 217, 218. The profiles of even the grey-ware bowls (nos. 200–1) are weak and sagging when compared with the Attic, or probably Attic, pieces.

---

[106] Thompson, *op. cit.* E. 154–8. Other Late Hellenistic pieces from Samos, Technau, *op. cit.* 48 and Beilage 28, 2, and from Keryneia in Achaia, nos. 22–6 in my article, *BSA* XLVIII 161, fig. 4.

[107] See also Körte, *JdI, Ergänzungsheft* V 196 ff. for earlier grey ware from Gordium. Mr. Dunbabin's sherds are now in the Ashmolean Museum.

[108] Boehringer and Krauss, *op. cit.* 120 and pl. 57, d, 1–5.

[109] Wiegand and Schrader, *Priene* 398, nos. 11–13 and fig. 526, no. 11.

[110] But our material is hardly adequate to sustain a lengthy discussion.

[111] Mr. Nicholls points out to me that the Laconian potters who copied classical Attic black glaze also usually fired their clay black. See his article in *BSA* XLV 290 ff. To have brown or red clay with red glaze would be easier.

[112] *Op. cit.* 12 and pl. 2.

[113] *Op. cit.* 434. [114] Waage, *op. cit.* 11 and pl. 1 (Shape 2).

[115] Mrs. Homann-Wedeking, *BSA* XLV 178, fig. 15E.

Our earlier bowls with inturned rims manage the turn by means of a smooth curve: the later ones turn with a sharp angle. This is true of the larger as well as of the smaller bowls; compare no. 115 with no. 220 and no. 121 with no. 150. This rule is not, however, without exceptions.

WHITE-SLIPPED WARE

Hellenistic white-slipped vases are not uncommon (for example, the lagynoi and other vases discussed by Leroux[116] in his monograph), but I do not know of any parallels to our drinking-cups. The type represented by our nos. 171–3, 224, 225, 226 has many of the essential features of the archaic chalice—high foot, wide bowl, flaring lip, and two horizontal handles. The handles are quite useless either for holding the cup or for hanging it up; they look like a feature that is retained merely because tradition demands it. The last, most debased, examples are handleless.

We know that some archaic chalices were painted specially to be temple dedications.[117] Possibly the chalice-type continued to be made for this purpose long after it had passed out of everyday use. Our worst and latest pieces, like no. 226, would be quite useless for mortals to drink out of. They might, however, have served the gods at a pinch.

There are a number of feet in Chios museum which seem to represent a half-way stage between the familiar archaic form and our no. 171. I believe them to be those referred to by Miss Lamb, *BSA* XXXV 159, found during building operations in the town of Chios.

Against the theory that cups of this type are directly descended from the archaic form must be set their absence from the lowest level in the well; but as the amount of pottery from this level was not very great, this may well be accidental. For the ancestors of tall cups like our no. 133, see *ADelt* II 199, fig. 15.

WEST SLOPE WARE

Although the closest parallels that I know for the pieces from the top of our well were found at Pergamon, I do not think that they represent a local fabric. There seems to be a natural descent from our group to Perdrizet's,[118] in which exactly the same shapes and decorative elements reappear in a more florid form, and thence to Watzinger's.[119] Whether the actual pieces are Attic or not I am not competent to judge, but there can be no doubt that the inspiration came from Attica.

CHIAN AMPHORAE[120]

Although no complete Chian amphorae could be reconstructed from the fragments found, the series of necks and feet from our various deposits may be of value in providing proof of the Chian origin of various types.

---

[116] *Op. cit.*, nos. 1–121.

[117] From Kato Phana, Lamb, *BSA* XXXV 161, fig. 12 and Kourouniotes, *ADelt* II 199, fig. 16; also from Naucratis and Aegina, see Price, *JHS* XLIV 205.

[118] *Fouilles de Delphes* V 171 ff.

[119] *AM* XXVI 67 ff.

[120] I have learned a great deal from Miss Grace and from Mr. J. M. Cook. Without their guidance I would probably never have attempted to classify the coarse pottery from the excavation. But the opinions here expressed are my own. A better account of the subject from these more learned scholars is much to be hoped for.

Our series begins in the late seventh century (nos. 17–21). The Chian amphora of the period [121] had an ovoid body, but sloping shoulders and fairly short, straight neck with a heavy rim. The feet (FIG. 9 *a*, *b*) are long and hollow, one being straight, the other slightly splayed. (It is not, of course, certain that they are amphora feet.) The whole of the outside was covered with a thick white slip, upon which various simple designs were painted in broad red or black strokes.

In the first part of the sixth century amphorae were no longer slipped. We have no very clear evidence for shapes during this period, but the body was probably still ovoid. The foot becomes wider, lower, and more widely splayed (FIG. 9 *c*, *d*). The clay is light brown, gritty, and coarse; broad red bands are painted round the body (no. 48).

During the latter part of the sixth century and the beginning of the fifth the type of our nos. 51, 75–7 developed. The foot is smaller. It is hollow, but the edge of the hole is slightly thickened or turned in. The clay is much smoother and finer. Paint continues to be used on bodies, necks, and handles, but the painted bands, stripes, and loops are now very fine. Necks (FIG. 8, nos. 51, 51 *a*) are short and bulge widely above a high, sloping shoulder, turning in again just below the lip, which is thick, and usually painted. The circle and dot, often found on the side of the neck just below the rim, may be some sort of trade-mark. I do not know whether the bulging neck began with the type of our no. 48 or with no. 51, etc. References to other examples of this type are given under no. 51.

During the first half of the fifth century the ugly form of neck exemplified by our no. 370 (FIG. 8, no. 51*b*) developed. The bulge is confined to the upper part of the neck and sharply undercut, the lower part of the neck being straight. This form does not seem to have lasted long: our only example was a chance surface find. A better one, from Athens, is published by Miss Talcott, *Hesperia* IV 514, no. 86.

Of the type of Miss Talcott's no. 85 (*ibid.*) [122] we have no examples, though the stamps prove clearly enough that it was Chian. It seems to have been made during the latter part of the fifth century, a period which is not well represented in our excavation.

It was succeeded by the type of our FIG. 19 *b*.[123] The ovoid body is replaced by one shaped like an inverted cone, with sharp, flat shoulders and a tall, straight neck. This shape, somewhat modified, can be traced through our material into the Early Hellenistic period; its subsequent history I leave to better chroniclers. It became identified with Chios so closely as to appear on the island's coins. The earliest feet of this type are like our FIG. 9 *g*. The presence of one of these in our large stony pit in Trench B (see under no. 77) suggests that they may have been introduced just before the end of the fifth century. The date at which this pit was finally closed cannot be determined with complete certainty, but there was nothing in it which necessarily belonged to the fourth century. FIG. 19 *b* shows the type of neck which accompanies this foot; it is tall and straight, with a pronounced rim, and the handle comes up to just below the rim.

During the fourth century the toecap became steadily longer and narrower; sometimes it is made in one piece with the lower part of the body, but a type with a separately-made toecap is shown in FIG. 9 *i* (with toecap broken off) and *h* (with toecap attached). The types illustrated in FIG. 9 *g*, *h*, *i*, *j* seem to have gone out of use before the second level of the well in Trench A was filled in; our evidence does not allow a closer dating. By the end of the fourth century the types illustrated by our FIG. 9 *k*, *l*, *m*, had all been introduced (see under no. 181

---

[121] *Naucratis* I, pl. 16, no. 4.

[122] See also *Hesperia* III 202, fig. 1, no. 1.

[123] Drawn from a complete amphora found in the sea and now in private possession.

above).[124] These types are all common in the upper deposit, Type *k* being the most frequently found. Our evidence would suggest that *k*, *l*, and *m* existed side by side, *l* coming in perhaps rather after the others and never being quite so popular. They would seem to have been introduced before the end of the fourth century and lasted well into the third. By the time the well was completely filled up they were being, or had been, replaced by the solid, thin types *n* and *o*. Of these, *o* is certainly the later: it seems barely to have been introduced at the time the well was filled in, probably towards the end of the second quarter of the third century.

At the same time as the foot developed in this manner the neck grew taller. The handles also became longer, but not as fast as the neck, which rises higher and higher above them. The rim grows less heavy (see nos. 271–3). A complete amphora with foot of Type *k* is illustrated in FIG. 19 *a*.[125]

The stamped handles were always stamped on the top, where they turned to join the neck; by far the greater number of handles was plain. Very often there was a deep circular impression on the outside of the root of the handle, where it joined the shoulder. This never contained any letters or device, and may be merely a mark made when handle and shoulder were pressed together.

The fabric of all these pieces was light red, smooth but sometimes slightly porous, and well fired.

The foot illustrated in FIG. 9 *p* presents rather a problem. The clay is a rather darker red than the usual Chian colour, and the outside is black. Several fragments of body and part of a neck of the type of no. 273, all of the same fabric, were found. The foot does not quite fit into any of our Chian types; it had a hole in it, but this has been plugged with clay. Since the inside is not blackened, if the colour is the result of an accidental fire, the accident must have happened before the amphora was broken. Possibly we have here a jar which once held wine of some special vintage. See Virginia Grace, *Hesperia* III 296, for the esteem in which the ancients held Chian *retsina*.

FOREIGN AMPHORAE

Our material is not sufficient to provide evidence for a discussion of the development of any of the various types found. It would appear that the Chiots of the Early Hellenistic period imported wine from Kos, Knidos, Rhodes, and various unidentified cities, but were in the main able to rely upon local produce.

ROOF TILES

The upper two levels of the well contained numerous fragments of tiles, from which it appears that the roofs of Chios were covered with rows of large flat pan-tiles, each row overlapping the one below it. The joints between tiles in the same row were protected by narrow cover tiles. Each pan-tile had its lower end turned down, so as to hook over a raised rib running across the top of the upper end of the one below it, and its sides were raised for the cover tiles to hook over them. The cracks between the tiles were lined with mortar, which was still sticking to many of the fragments from the well. There were no holes through which the tiles might have been secured to the rafters, and roofs must therefore have been very low pitched.

---

[124] Feet were classified as follows:

Type of FIG. 9 *j*. Short toecap, distinctly set off from the body, with a wide, shallow hole in the underside.
Type of FIG. 9 *k*. Longer toecap, still distinct from the body, but the set-off not so sharply cut. The hole in the underside thin and deep.
Type of FIG. 9 *l*. The toe continues the line of the body with a barely perceptible break. Thin, deep hole in the underside.
Type of FIG. 9 *m*. Toecap distinct from the body, shape like Fig. 9 *k*, but solid.
Type of FIG. 9 *n*. Very long, thin toe; solid but with a slight circular depression on the underside.
Type of FIG. 9 *o*. Solid, long, pointed toe, not set off from the body at all.

Average examples of each type were chosen for illustration. Within the types, the length of particular toecaps varied, often as much as two or three centimetres. No account was taken of these variations in arranging the classification. While the figure makes it clear that the tendency is for toecaps to grow longer and longer, the toes of Types *k*, *l*, and *m* found in the second level of the well were not, as a whole, shorter than those of the same types in the upper deposit.

[125] In private possession in Chios.

The system was obviously satisfactory and lasted unchanged for two and a half centuries at least, for exactly similar pan-tiles were used to cover Graves 4, 5, 12, and 17. These complete tiles varied in dimensions from 0·70 × 0·57 to 0·64 × 0·52. Tiles from the same grave varied as much as those from different graves. Evidently there was no rigidly enforced standard.

The fabric is always well fired, hard, and very gritty. The colour varies, brick red, grey and brown being the most usual. About half the tiles from the well were glazed on the upper side, the colour being either bright red or black. None of the tiles from the graves were glazed, but this may be due to thrift, and therefore does not prove that all glazed tiles are early.

Exactly similar tiles were used to roof the arsenal at Pergamon. See Szalay and Boehringer, *Altertümer von Pergamon* X, pl. 29 (especially 29 c, where bits of pan-tiles and cover tiles are shown fitted together). See also *ibid.*, pl. 34 (showing the gutter at the edge of the roof), p. 39 (description) and pl. 43 (reconstruction). The upper level of our well in Trench A contained one small fragment with the edge decorated with a meander pattern in relief.

Only two pieces of our tiles were stamped or inscribed in any way.

370. PLATE 14 *c*. Fragment of pan-tile. Lower edge preserved on right of photograph. Inscription roughly incised before firing:

IEPON
EPMMY

The first word is clear enough: the second is probably an unsuccessful attempt to write the name of the god Hermes, the M having been botched at the first attempt.

Unglazed. From the second level of the well.

371. PLATE 14 *c*. Fragment of pan-tile. Lower edge preserved at bottom of photograph. Stamp ΑΠΗΛΙΝΩΝ. I do not know the meaning of this word, perhaps ἀ- privative + πήλινος, but this seems inappropriate for a tile.

Unglazed. From the upper level of the well.

Of the shallow curved tiles often found on Hellenistic sites in the Peloponnese (typical examples in the bathroom drain of the house excavated by myself at Keryneia) there was not a trace.

Loom-weights (373–394)[126]

FIG. 22 shows sample loom-weights arranged according to the contexts in which they were found. The ones in the top row are all from the large stony pit; those in the second from the second level of the well; the third from the top of the well, and the bottom from later disturbed contexts.

The earliest type (nos. 373–5) is simply a lump of clay, the top being pinched up and pierced with a single suspension hole; some (*e.g.* no. 374) are provided with a low, flat foot, but most are merely left rounded underneath. The very small weight (no. 375) I suppose was used in weaving fine stuffs, perhaps linen.

One or two weights of this type, and no others, were found in the red earth; in the stony pit it was much the most numerous; there were, counting broken pieces, about twenty examples. But before the stony pit was finally filled in the type of nos. 376–7 had been introduced: this is in the form of a thick double-convex lens, with two suspension holes; often the bottom is flattened, probably to make it easier to stack the weights in the kiln (no. 376). Two weights like no. 376, no. 377, and one very neat pyramidal loom-weight with a single suspension hole (no. 378) were found in this context.

---

[126] No Cat. no. **372.**

The lowest level of the well contained two disc loom-weights with double suspension holes, of the type of no. 392; one was stamped with a seal-impression of Herakles with club and lion skin (FIG. 20 *a*).

The second level contained:

5 loom-weights of the type of no. 379.
5 loom-weights of the type of no. 380.
4 smaller, like no. 381.
5 truncated pyramids (nos. 382–3 and three others). No. 382 has an incised E on one side near the top.

The top of the well contained:

17 like nos. 384–5.
15 like nos. 386–7.

Two of the former had a seal impression:

FIG. 20 *b*. Two-handled, tall-stemmed drinking-cup, taller and deeper than the classical kylix. I do not know an exactly parallel shape. To its left, a round disc (? piece of money).

FIG. 20 *c*. Only part of impression preserved. Female head and shoulders.

In the later contexts pyramidal loom-weights were fairly common, about ten in all being found. There were also several of the type of nos. 384–7. There is no evidence that it was replaced by the pyramidal form.

Stamps found:

FIG. 20 *d*. On No. 391, to the right of the incised E. Athena with spear.

FIG. 20 *e*. On a small double-convex loom-weight picked up on the surface. Lion with long flowing mane, leaping to right.

FIG. 20 *f*. On a large double-convex loom-weight, picked up on the surface. Head of young man, in profile to left.

The vertical loom with weights has been discussed by Miss Davidson in *Hesperia* Supplement VII 65 ff. and Mrs. Crowfoot, *BSA* XXXVII 36 ff. It only remains to add that loom-weights do not develop in the same way in different parts of Greece. The type of our nos. 373–5 I believe to be peculiar to Chios.

CLAY SPINDLES

395. FIG. 16. H. 0·022.
From the red earth.

396. FIG. 16. H. 0·026.
From the lowest level of the well in Trench A.

J. K. ANDERSON

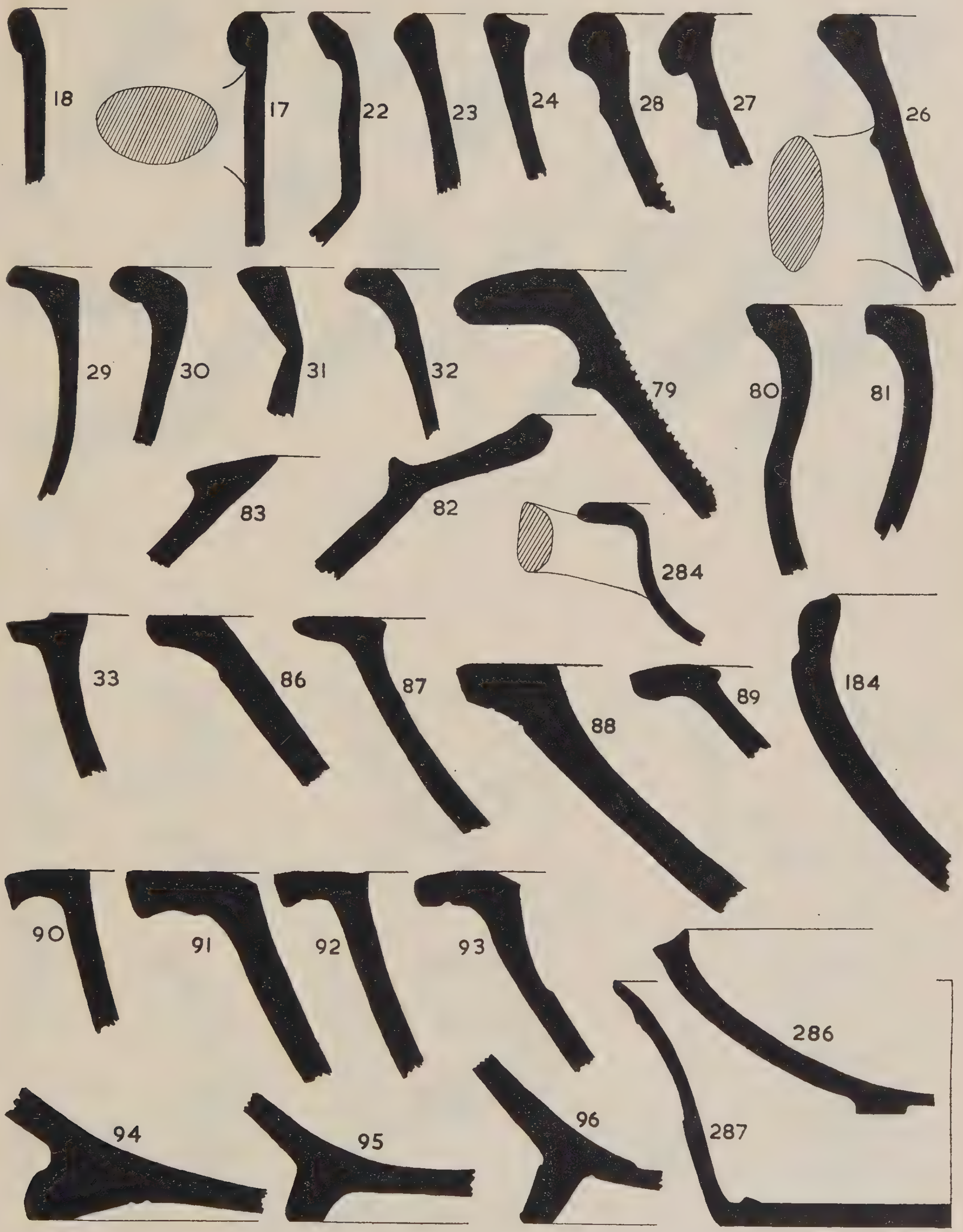

18
17
22
23
24
28
27
26
29
30
31
32
79
80
81
83
82
284
33
86
87
88
89
184
90
91
92
93
286
287
94
95
96

Fig. 5.—Archaic Amphorae 17–22, and Hydriae 23–4 (I). Kraters 26–32 (I), 79–83 (IV). Large Basins 33 (I), 86–96 (IV), 184 (VI), 284–7 (VII). (Scale 1/2, Except Nos. 226–7, which 1/4.)

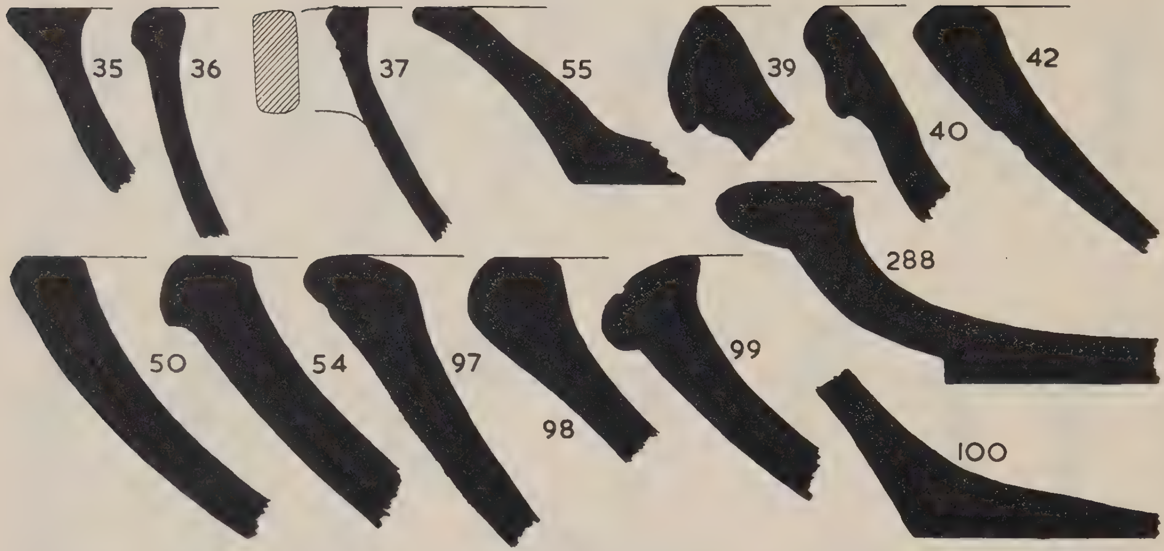

35
36
37
55
39
40
42
288
50
54
97
98
99
100

FIG. 6.—SMALL BASINS 35–7 (I), 55 (III). STONEWARE BASINS 39–40 (I), 49–50 (II), 54 (III), 97–100 (IV), 288 (VII). (SCALE 1/2.)

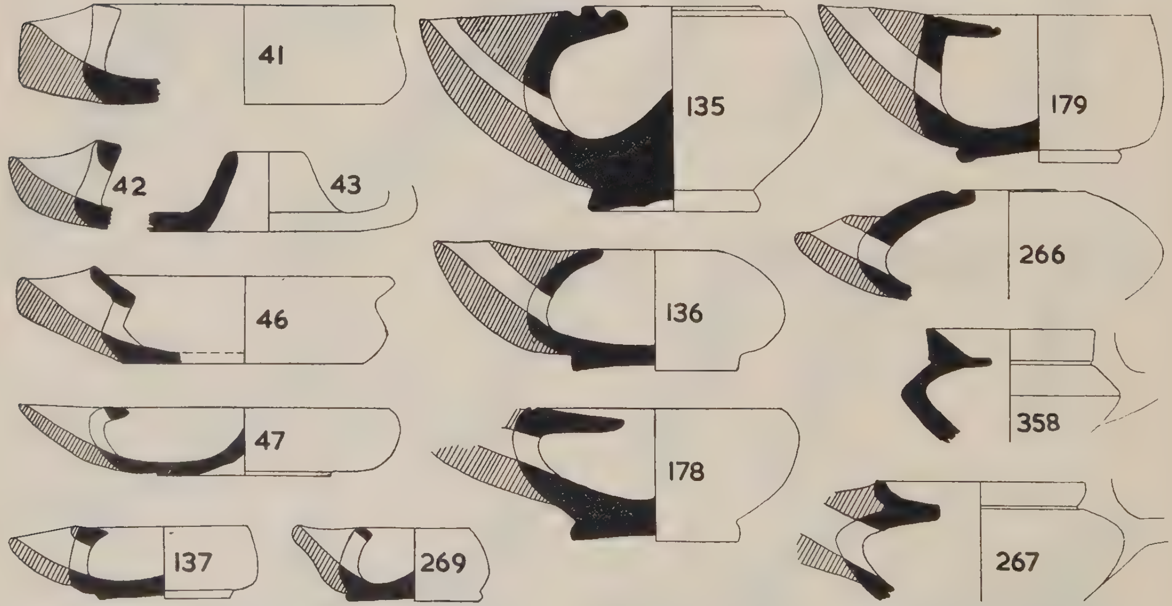

41
42
43
46
47
137
269
135
136
178
179
266
358
267

FIG. 7.—LAMPS 41–3 (I), 46–7 (II), 135–7 (III), 178–9 (VI), 266–9 (VII), 358 (IX). (SCALE 1/2.)

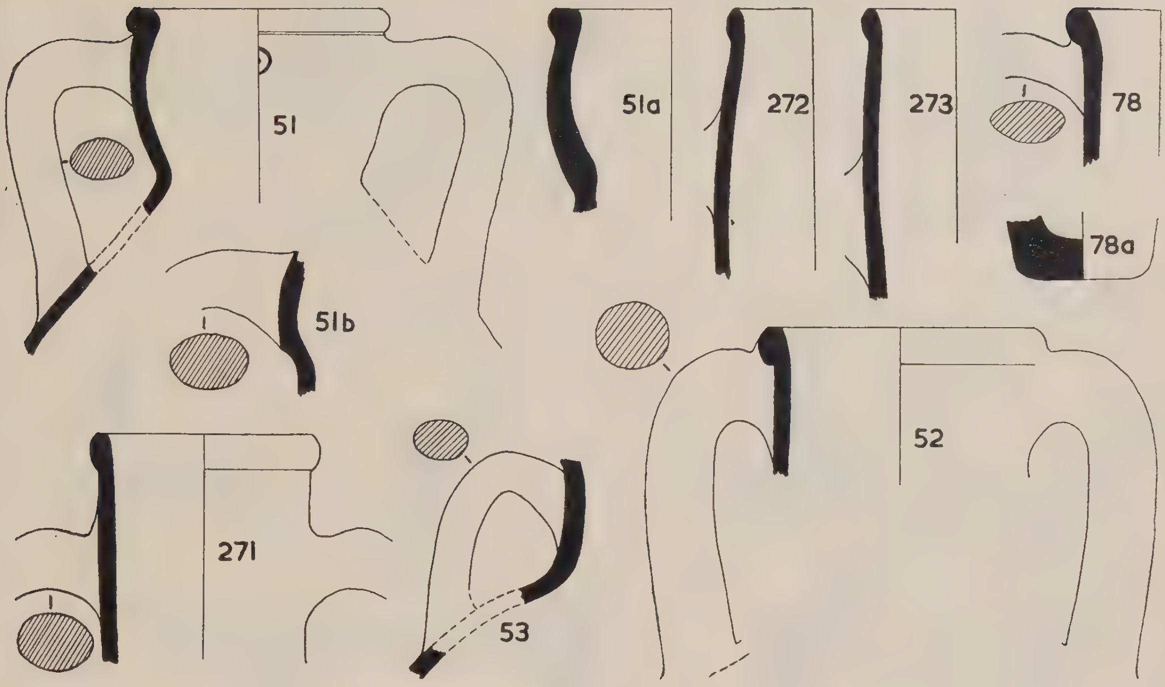

51
51a
272
273
78
78a
51b
52
271
53

Fig. 8.—Chian Amphora Necks 51 (III), 271–3 (VII). Grey Amphorae 52–3 (III), 78 (IV). (Scale 1/4.)

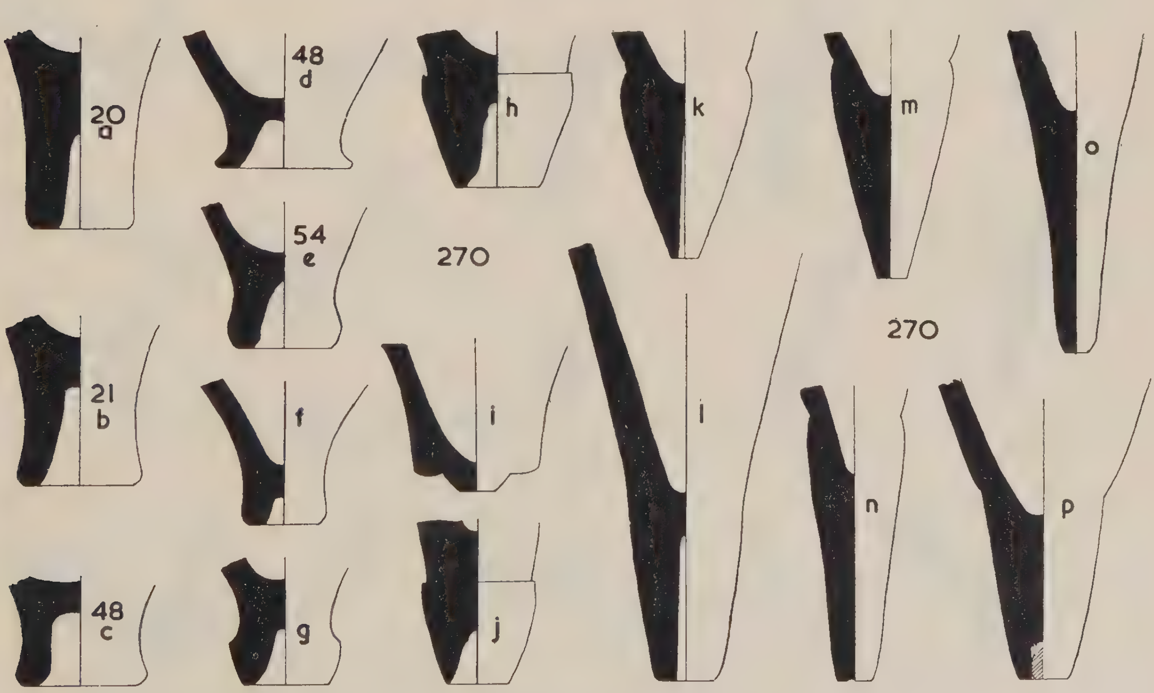

20
a
48
d
h
k
m
o
54
e
270
270
21
b
f
i
l
n
p
48
c
g
j

Fig. 9.—Chian Amphora Feet 20–1 (I), 48, 54 (II), 270 (VII). (Scale 1/4.)

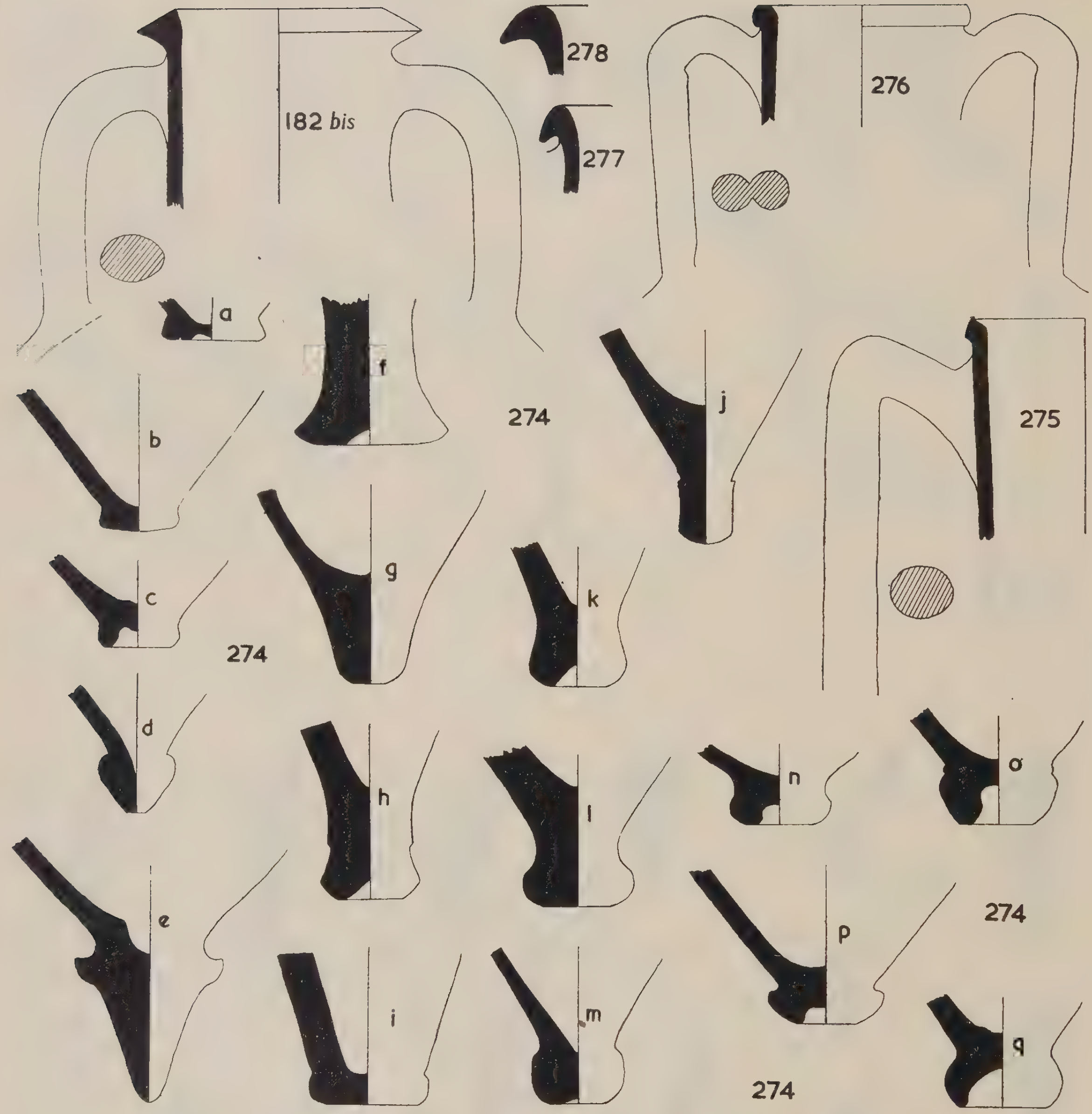

182 *bis*
278
277
276
a
f
274
j
275
b
g
c
k
274
d
h
l
n
o
e
i
m
p
274
q
274

FIG. 10.—FOREIGN AMPHORAE 182 *bis* (VI), 274–8 (VII). (SCALE 1/4.)

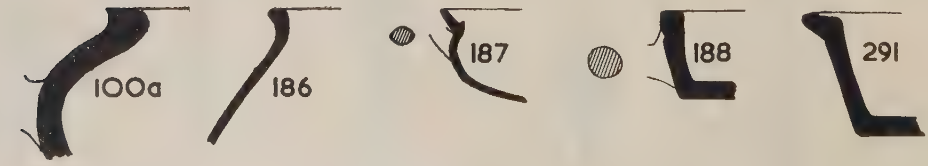

100a
186
187
188
291

FIG. 12.—COOKING-POTS 100a (IV), 186–8 (VI), 291 (VII). (SCALE 1/4.)

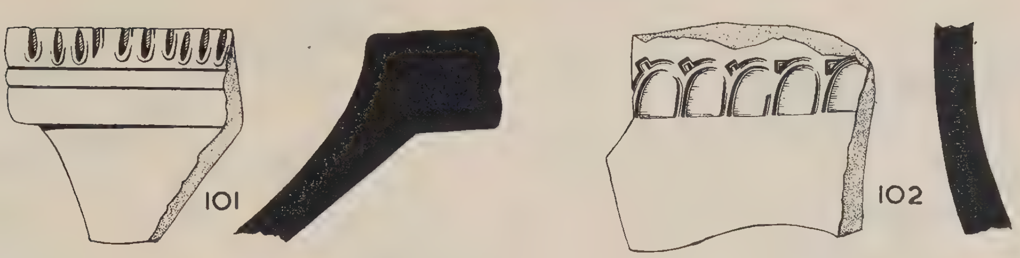


Fig. 14.—Relief Vases 101–2 (IV). (Scale 1/4.)

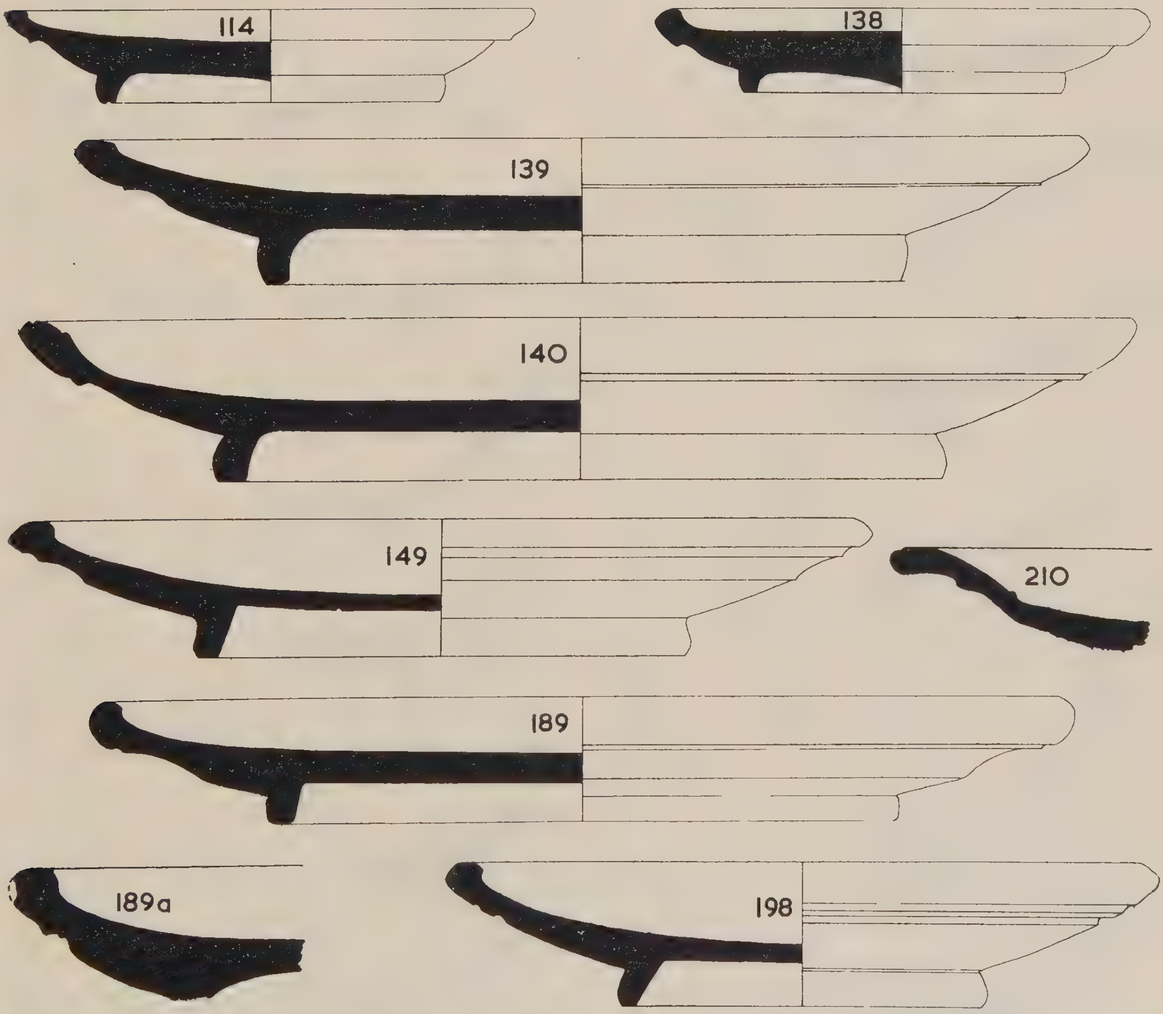

114
138
139
140
149
210
189
189a
198

Fig. 13.—Black-glazed Plates 114 (V), 138–140, 149 (VI), 189, 198, 210 (VII). (Scale 1/2.)

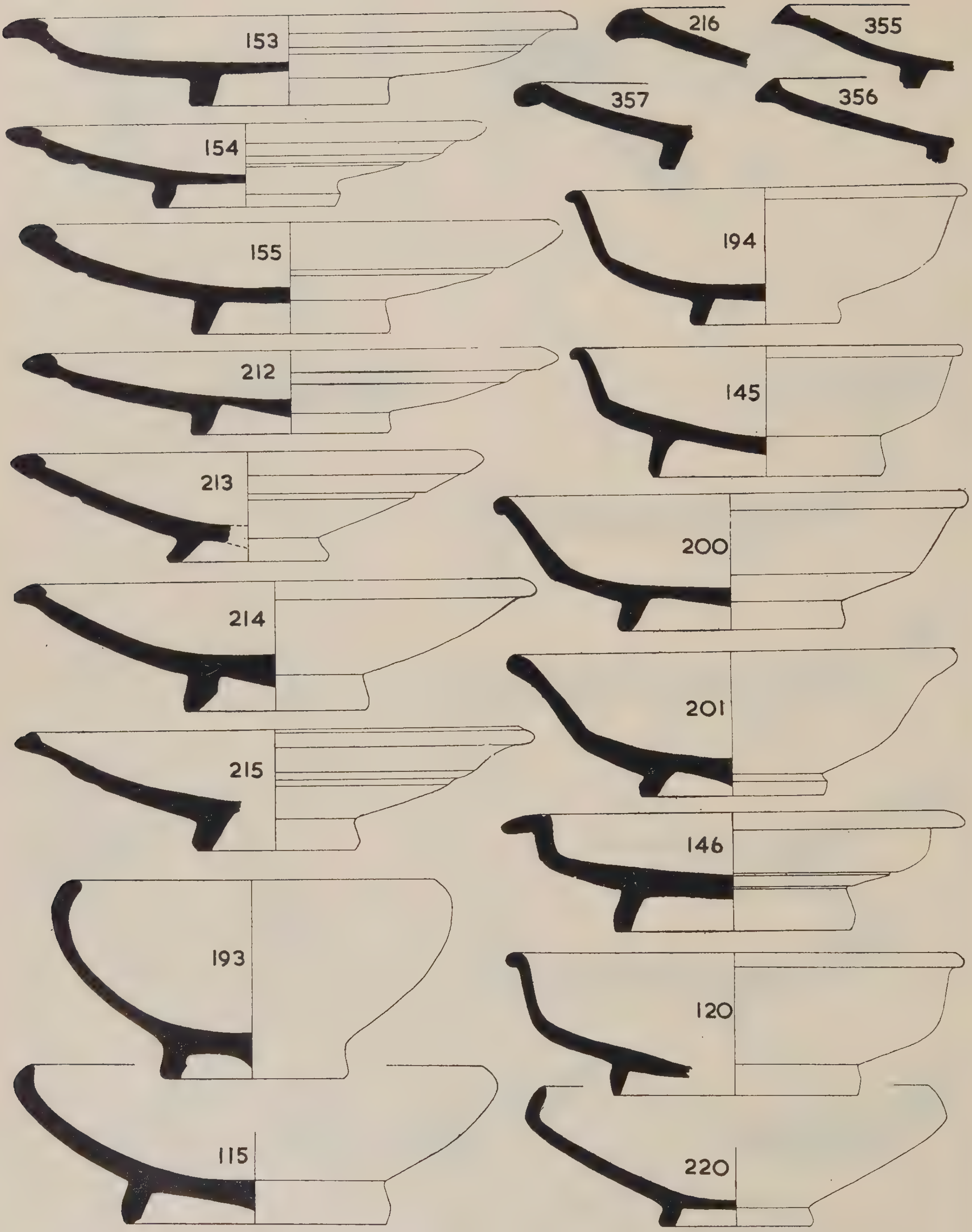

153
216
355
357
356
154
194
155
212
145
213
200
214
201
215
146
193
120
115
220

Fig. 15.—Half-glazed Plates 153–5 (VI), 212–6 (VII), 355–7 (IX). Bowls with Inturned Rims 115 (V), 193, 220 (VII). Bowls with Outturned Rim 120 (V), 145–6 (VI), 194, 200–1 (VII). (Scale 1/2.)

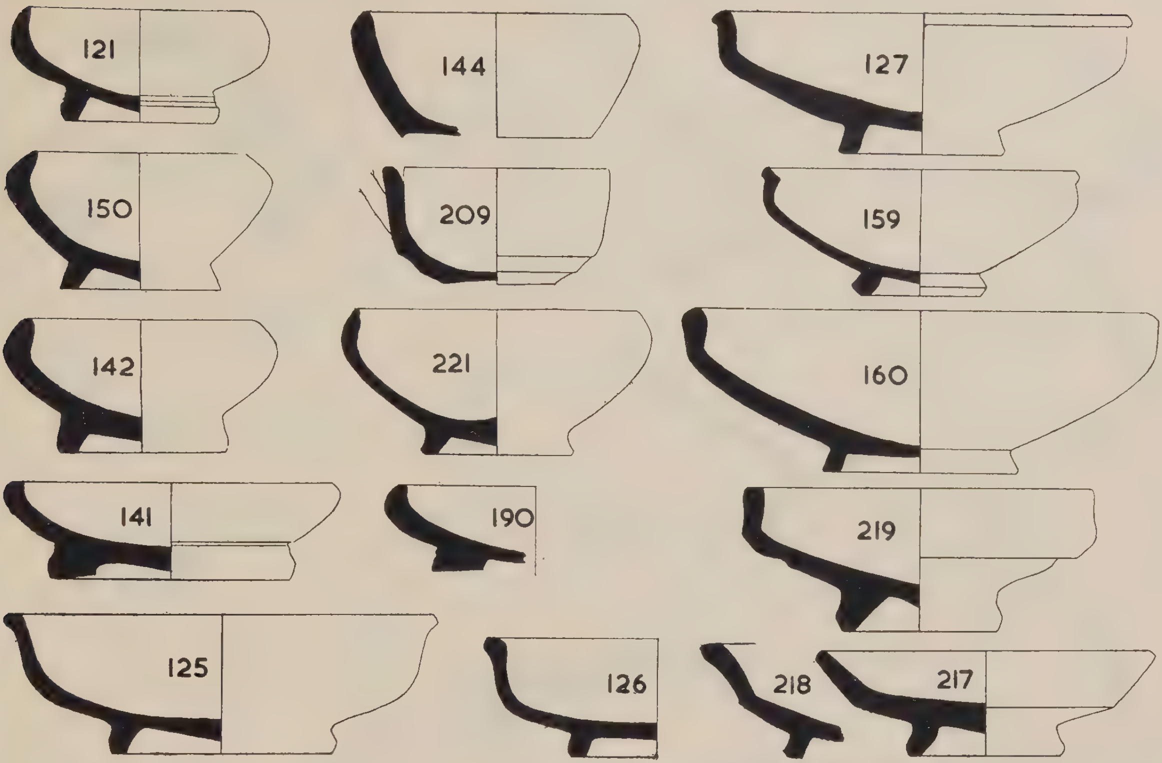

121
144
127
150
209
159
142
221
160
141
190
219
125
126
218
217

FIG. 16.—SMALL BOWLS 121, 125–7 (V), 141–2, 144, 150, 159–60 (VI), 190, 209, 217–9, 221 (VII). (SCALE 1/2.)

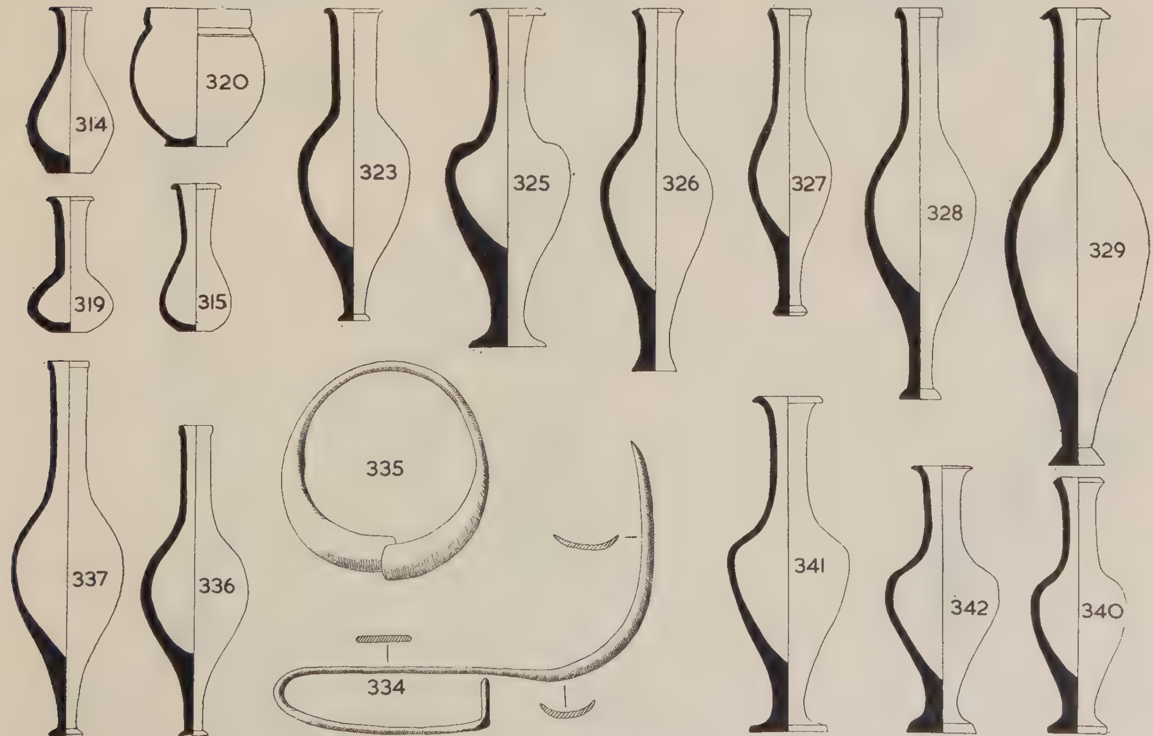

314
320
323
325
326
327
328
329
319
315
335
337
336
334
341
342
340

FIG. 18.—TOMBS. 314–5 (T. 1), 319–20 (T. 4), 323 (T. 8), 325–6 (T. 9), 327–9 (T. 10), 334–7 (T. 11), 340–2 (T. 12). (SCALE 1/4.)

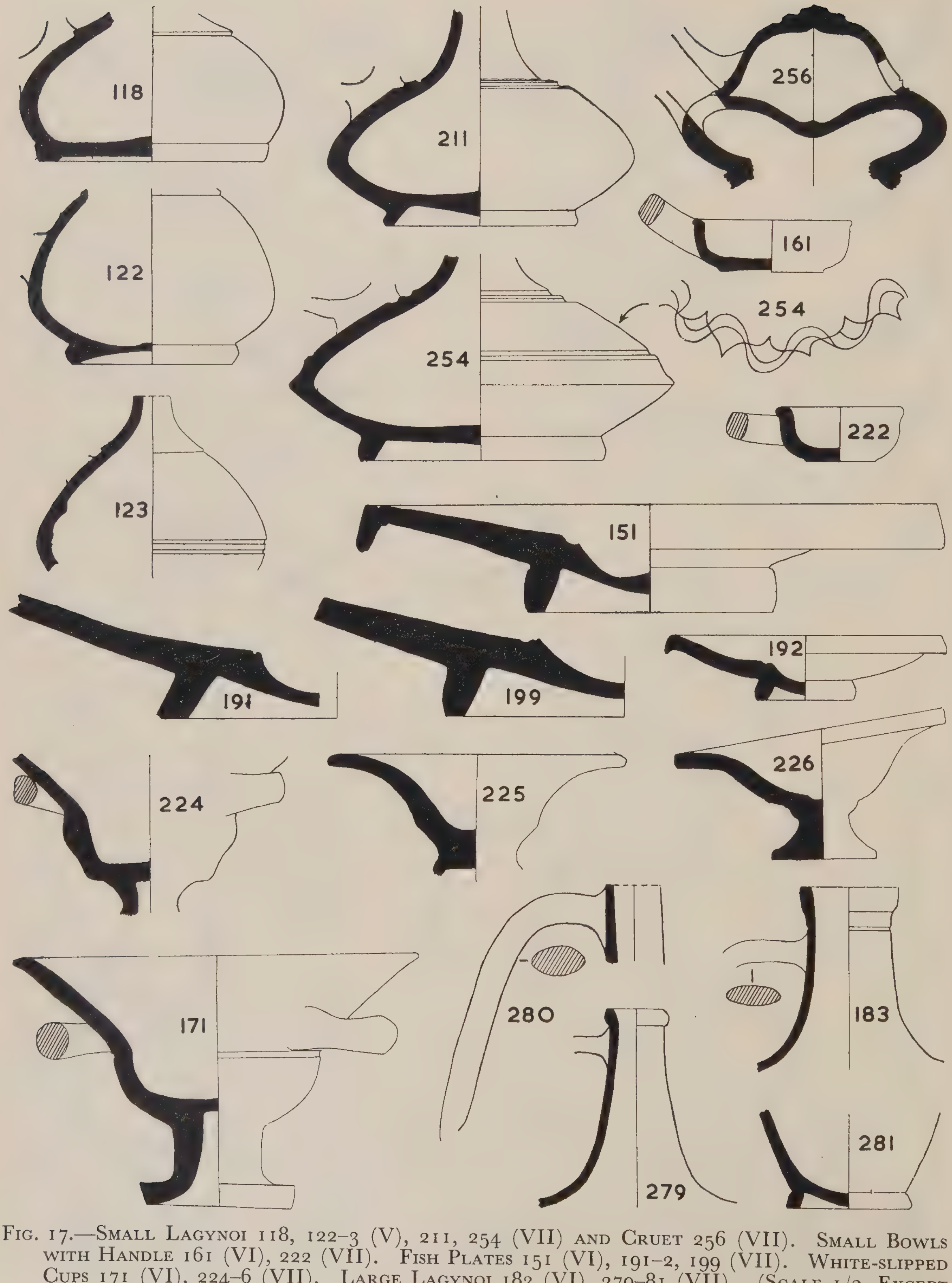

118
211
256
122
161
254
254
222
123
151
191
199
192
224
225
226
171
280
183
279
281

Fig. 17.—Small Lagynoi 118, 122–3 (V), 211, 254 (VII) and Cruet 256 (VII). Small Bowls with Handle 161 (VI), 222 (VII). Fish Plates 151 (VI), 191–2, 199 (VII). White-slipped Cups 171 (VI), 224–6 (VII). Large Lagynoi 183 (VI), 279–81 (VII). (Scale 1/2, Except Nos. 183, 279–81, which 1/4.)

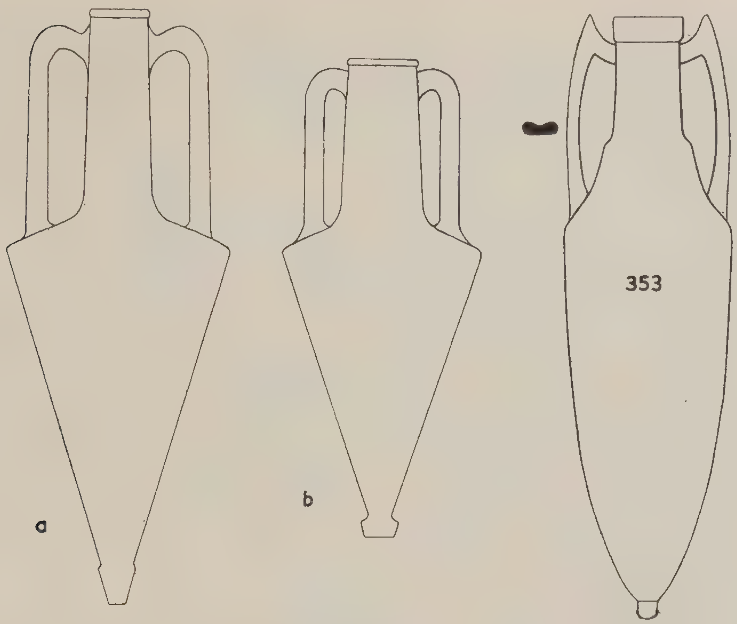


Fig. 19.—Amphorae. *a* and *b*, Chian Types; 353, Coan (VIII). (Scale 1/12.)

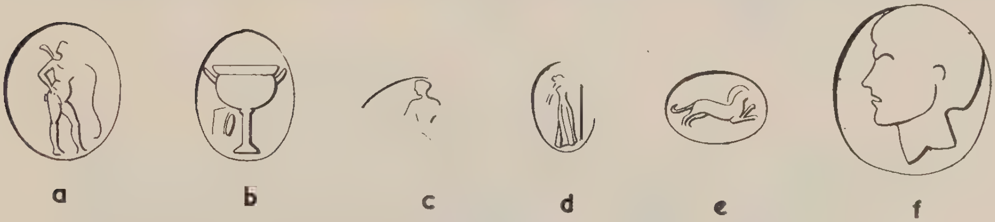


Fig. 20.—Loom-weight Stamps. (Scale 1/1.)

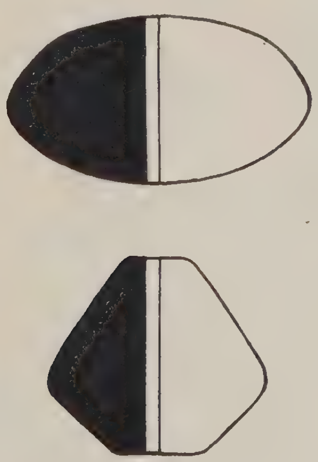


Fig. 21.—Spindle Whorls (395, 396). (Scale 1/2.)

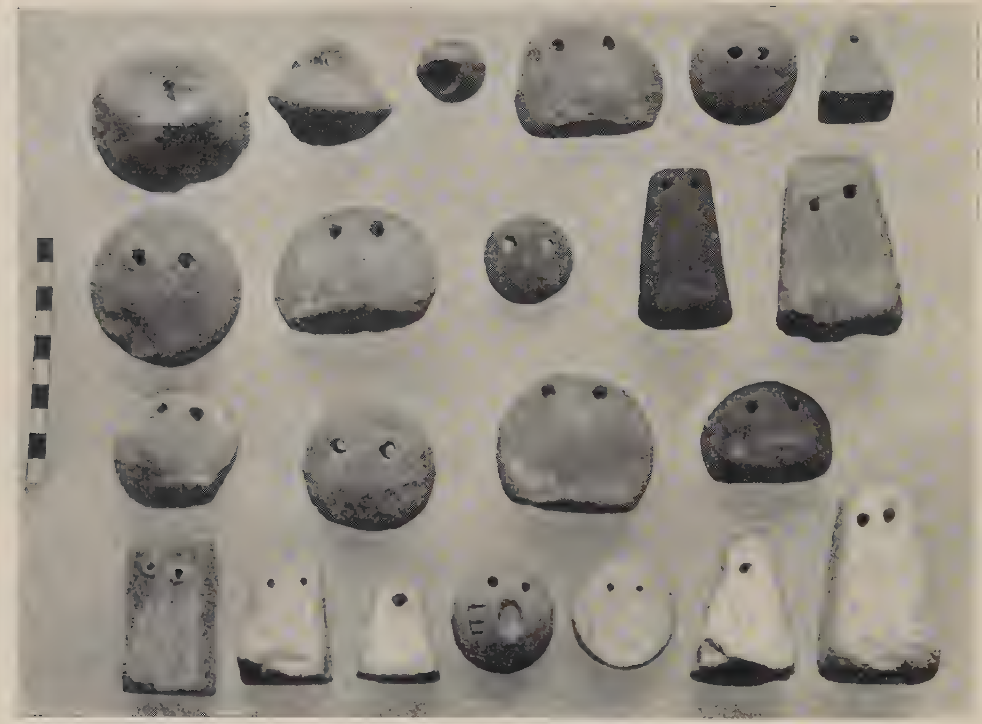

373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394

Fig. 22.—Loom-weights.

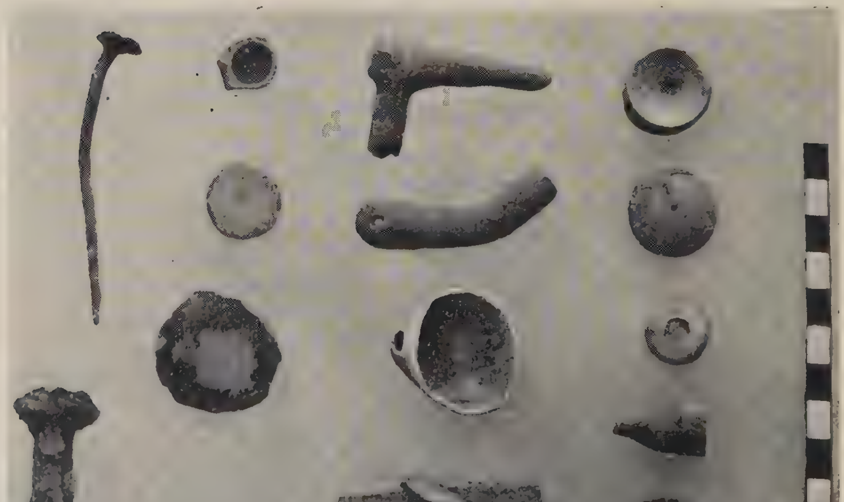

312
362
311
310
309
361
308
365
364
363
368
367
43*a*
366

Fig. 23.—Miscellaneous Small Finds.

PAINTED VOTIVE PLAQUES AND AN EARLY INSCRIPTION FROM AEGINA

(PLATE 16)

THIS article is intended to serve as an introduction to the study of painted votive plaques; not that such a study is by any means novel, but since Otto Benndorf's published work on them [1] the amount of material known has increased, and further consideration of them both as painted objects and as dedications seems desirable. As well as a general survey of their nature, name, and decoration, a more detailed account of eighth- and seventh-century examples is included, and I hope at another time to be able to extend the study to the rich later series, as well as to the Corinthian and funerary plaques which are not discussed here in detail.[2]

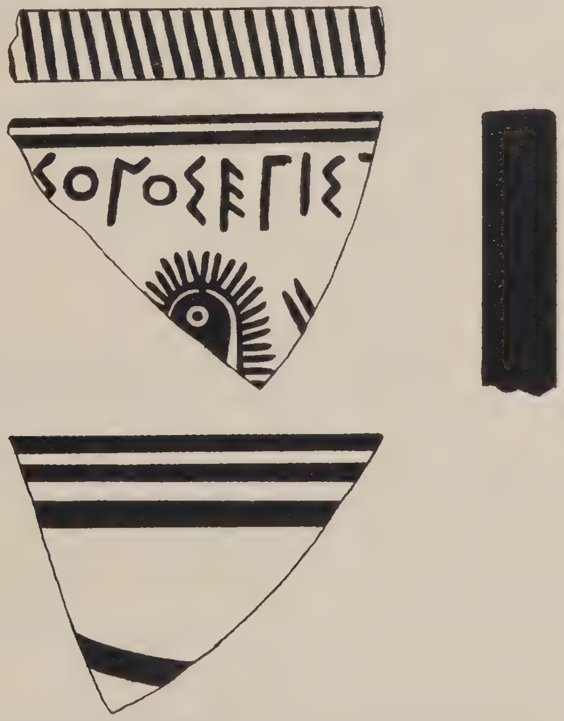


FIG. 1.—FRAGMENT FROM AEGINA (FULL SIZE).

I would like to express my gratitude to Mme S. Karouzou, Prof. H. A. Thompson, and Prof. O. Broneer for permission to publish fragments from the Acropolis, the Agora, and the North Slope excavations. Miss L. H. Jeffrey graciously counselled me on all epigraphical points. The photograph on PLATE 16, 3–5 is by Miss A. Frantz and PLATE 16, 1 by Mr. J. M. Cook; the drawing in FIG. 1 is by Miss E. A. B. Petty.

[1] Especially *Griechische und Sicilische Vasenbilder* 3 ff. and *AE* 1887, 115–130. To Furtwängler and Pernice (*JdI* XII 9–48) goes the credit for the setting in order of the Corinthian plaques in Berlin from Pente Skouphia.

[2] References throughout to *CVA* are by the national plate number, to Graef-Langlotz, *Die antiken Vasen von der Akropolis zu Athen*, by inventory and plate number (thus, Akr 2500, pl. 104), to Furtwängler, *Beschreibung der Vasensammlung in Berlin* by inventory number and F. (thus, Berlin F. 400). By *double plaque* I mean a plaque with figured or abstract decoration on both sides. By *ticket plaque* I describe the mid-seventh century white ground plaques of small size from Attica, decorated with tripods, birds, etc. (below pp. 189 f.).

An inscribed fragment from Aegina is published below for the first time. Its finding did not suggest the study of plaques, in which I was already engaged, and I attribute and acknowledge its timely appearance to the Ἀγαθὴ Τύχη, who occasionally smiles on the archaeologist.

AN INSCRIBED FRAGMENT FROM AEGINA

The fragment illustrated on PLATE 16, 1 and FIG. 1 was picked up by me on the '*Kolonna*' site by the town of Aegina, 2 m. from the foundations of the east end of the Apollo temple. It had been washed out by heavy rain from a baulk left by the excavator, a rich source of similar antiquities on the site. It is now in the Collection of the British School at Athens. The surface is poorly preserved, but the painted decoration can be clearly made out. The preserved edge is 5·0 cm. long, the clay in the break is orange-pink with some impurities, and the surface and edge are covered with a pale cream slip. Only on the back, which was not slipped, and on parts of the face is the original glaze preserved: here it is dark brown, elsewhere only traces are preserved where it had overlaid the slip.

Below two lines on the face is the inscription, broken at either end –ΣΟΝΟΣΕΠΙΕΤ–. The shape of all the letters is clear and T the only possible restoration of the last preserved letter; they are painted boldly and neatly. Below is the helmeted head of a warrior to the left. The springing for the glaze outline to his nose is just apparent, and the trace of glaze at the lowest part of the sherd may be part of his shield rim. Behind his head are the tips of the two spears carried by another warrior. On the upper edge of the fragment are transverse parallel lines, and on the back, beneath three broad horizontal lines, part of a curved black line.

The face is practically flat, and the back, which is not so carefully finished, rather less regular. The decoration, albeit summary, of the back makes it unlikely to be from a box [3] or lid, and the inscription lends weight to its identification as part of a votive plaque.

Unfortunately little is preserved of the figure drawing, but enough to judge of its quality and style. The warrior's head is painted in an unmistakable Late Geometric manner betraying nothing of the loosening of style apparent in work of around 700.[4] The central eye in the silhouette head [5] and rigid upstanding plume [6] suggest a date before any advent of Protoattic. It can in fact hardly be later than the decade 720–710, following conventional dating, and could well be earlier. Warrior friezes are commonly found on Late Geometric vases,[7] but a comparison with the figures on the Sunium votive plaque (*BSA* XXXV, pl. 40 b), which is dated about 700, is striking, and the Aegina plaque might have been similarly decorated with a ship scene, although, of course, too little is preserved to justify more than the suggestion. Note, however, that the Sunium marines carry their spears at the ready, not at the slope, just as do the warriors on the Aegina plaque. The back is unslipped, yet with its triple line border it may have borne a figured scene or pattern, though I cannot reconstruct it from the little that remains. Backs of one-sided plaques are always finished more carefully than, for example, the insides of boxes, and a geometric plaque fragment from the Acropolis [8] bears on its back a simple linear pattern—as may have ours, and on its face a ship scene.

The inscription is the earliest painted inscription on Greek pottery known to me. Its closest rival is Akr 309,[9] of which too little is preserved to date it accurately. Earlier may well be the incised inscriptions of the Dipylon oenochoe, though the Hymettus vases and Corinth fragments are probably much later.[10] The letter forms offer nothing unusually primitive: the *pi* is almost completely angular, and the top stroke of the *epsilon* joins the vertical stroke at its end unlike those of the Dipylon oenochoe,[11] but like some from the Hymettus *graffiti*; [12] on the four-stroke *sigma* see further below. The letters have none of the archaic crudeness of the inscription on the Dipylon oenochoe, some of which may be as much due to the inexperience of the writer as to the immaturity of the Greek alphabet, nor are they retrograde. Here, at least, is nothing suggesting an alphabet or practice of writing in its infancy: it rather presupposes a generation or more of familiarity, perhaps a point of some interest to the Homeric scholar.[13] The fact that it is a painted inscription and dateable, at least with reference to the known development of Attic vase painting, makes it a valuable monument of early Greek writing, perhaps the earliest evidence we have, and that of a strikingly mature style.

---

[3] On pitfalls in the identification of plaques, see below p. 194.

[4] *Cf.* Cook *BSA* XLII 139 ff.

[5] Cf. *BSA* XXXV 168.

[6] The type of plume is best paralleled on an unpublished fragmentary amphora in the Vlasto Collection (*BSA* XXXV 167–9, 199), but *cf.* also *CVA* Berlin I, pl. 88. 4, which is later, and a sherd in Athens, Agora P 13280.

[7] From Dipylon amphorae *JdI* LVIII 5 to *BSA* XLII, pll. 19, 22.

[8] Below p. 196, ACROPOLIS no. 1 and *cf.* no. 3.

[9] Akr 309 pl. 12. Graef quotes Kretschmer's restoration of the inscription Α]ντε[νορ, which may be influenced by the Α]ντενορ of Akr 368 pl. 13. What is read as an ε on Akr 309 might as well be α and the whole ανεθεκε]ντα[θεναιαι.

The letters probably preserve part of the dedicator's name preceded by that of his father, and, as Miss Jeffery has pointed out to me, could in common with most early inscriptions form part of a hexameter verse. Thus:

– ⏑ ⏑ | – – | – ⏑ ⏑ | – – | – ⏑ ⏑ | – ⏑ [14]
– – | – Λυ] | σονος Ε | πιστ[ε | μον ανε | θεκε.

The σονος fits no known deity worshipped at Aegina, or divine epithet. επιστ[ατης might be read, and a dedicator does sometimes record his profession or office, though never on a plaque. The preposition ἐπί is another possibility, but so little of the inscription is extant that further speculation is not likely to prove rewarding, and the dedicator's name is, after all, what we would most expect in the circumstances The rarified atmosphere of eighth-century epigraphy does not afford much material for comparison.

I have throughout been assuming that the fragment is Attic, but the assumption needs to be justified. An Aeginetan origin for many of the fine seventh-century vases painted in the Protoattic manner and found in Aegina finds its supporters, and the same suggestion is made, of course, for much Protocorinthian. Epigraphical evidence is adduced in respect of the ΜΕΝΕΛΑΣ stand in Berlin.[15] and it should be remarked here that the four-stroke sigma appears on our fragment also. As, however, the three-stroke and four-stroke forms are both found in Attica and Aegina the plaque fragment can afford evidence neither for nor against the suggestion. Technical difficulties of producing fine ware in Aegina with local clay have been admitted,[16] and there is nothing about the 'Attic' geometric pottery found there [17] to suggest that it is not in fact from Attica. The fabric of our fragment is indistinguishable from Attic.[18] Even if any of the ‘ Attic ’ eighth- or seventh-century pottery from Aegina were made locally it could not be distinguished from known Attic types, and is abreast of the Attic development, so the same considerations for chronology should apply for both.

---

[10] Carpenter, *AJA* XLII 58 ff. gives references and expresses doubts based, so far as the Attic vases are concerned, on the uncertain chronology of the "geometric overlap" in Attic. Geometric does certainly survive into the following period (*op. cit.* 61 f.), *i.e.* Early Protoattic, but then it can be labelled 'subgeometric' and its style recognised. The Dipylon oenochoe (*AM* VI, pl. 3 for the whole vase; note the late and subgeometric "Ovalornament", *JdI* LVIII 30 f., *BSA* XLVII 4: earlier on a similar vase *CVA* Munich III, pl. 394.2; on the inscription, Friedländer and Hoffleit, *Epigrammata* 54, no. 53) might just qualify for the description (Young, *Hesp* Suppl II 228): our Aegina fragment could not. On the *AJA* alphabet-battles and earliest writing see also Cook, *JHS* LXVI 89 f., Albright, *Archaeology of Palestine* 194 ff., *AJP* LXXIV 450.

[11] Kirchner, *Imagines Inscriptionum Atticarum*, pl. 1.1.

[12] *AJA* XXXVIII, pl. 3.

[13] See Wade-Gery, *The Poet of the Iliad* 10 ff., Carpenter, *Folk Tale, Fiction and Saga in the Homeric Epics* 10 f.

[14] Or Κτεσονος, Μνεσονος, etc.

[15] L. H. Jeffery, *JHS* LXIX 26, and see Cook, *Gnomon* XXIII 213. On the strength of the *lambda* form the inscription on *BSA* XXXV, pl. 54 f. might be restored Αλ[εξανδρος and represent the Judgement of Paris (Rumpf, *MuZ* 31): Rumpf, *ibid.* 25, suggests that such vases may be the work of Aeginetans in Athens.

[16] Welter, *AA* 1937, 25 f.; Payne, *NC* 39, n. 1; Cook, *BSA* XXXV 209 f.; Eilmann and Gebauer, *CVA* Berlin I 5; Dunbabin, *Gnomon* XXV 244; Vanderpool, *AJP* LXXIV 322. Welter, discussing the possible Aeginetan origin of some of the Protocorinthian found there, retracts. The problem of the clay is not unsurmountable; clay could be imported. But, if the local fine ware industry in the eighth and seventh centuries relied on clay from Attica it looks as though it imported its potters and painters also, and their products remain Attic unless the influence of local styles can be detected in their work.

[17] Furtwängler, *Aegina* pl. 125, Kraiker, *Aigina* 12, 26–9, and see *AJA* LVI 221.

The very existence of an inscription presents a problem, and it might be easier to assume that the plaque was ordered, made, and dedicated in the same place. But it is by no means unreasonable to suppose that an Athenian or home-going Aeginetan ordered the plaque in Athens to be inscribed with his name.[19] The pottery of Chios of a century or more later affords a parallel.[20] Vases were made there to order with the name of the dedicator and taken for dedication to Aegina, others, bearing the name of the deity also, were perhaps carried by the dedicator to Naucratis.[21] From early times vases were made to order for dedication in Athens with inscriptions painted before firing and not scratched on afterwards.[22] The practice is even more understandable with plaques which can only be votive.

To whom was it dedicated? The most important sanctuary on the site in later times was that of Apollo. If our plaque figured a ship scene comparable with the Sunium plaque (from an Athena sanctuary), we are reminded of Aphrodite Epilimenia to whom anchors were dedicated on the site.[23] The complete plaque may well have been pierced at the upper corners for suspension as the Sunium plaque is. The dedication would have been made before any Athens–Aegina dispute of the seventh century,[24] and while they were both members of the Kalaurian amphictyony.[25] To my knowledge no other painted votive plaques have been found in Aegina.[26]

PAINTED VOTIVE PLAQUES

Benndorf collected and discussed the literary and some archaeological evidence for the dedication of painted votive plaques in his *Griechische und Sicilische Vasenbilder* (1868), 3 ff.[27] This remains the *locus classicus* on the subject, since the subsequent publication of finds from Corinthia and the Athenian Acropolis has provided illustration and comment enough but little that is new in explanation of the practice. The wealth of material evidence from excavations in the last century justifies a re-examination of a subject which can throw light on Greek votive practice, as well as being an integral part of the history of Greek vase painting.[28]

Seeking a literary reference for the clay plaques he is discussing, Benndorf[29] quotes Aeneas Tacticus, a fourth-century B.C. writer on siegecraft. He is describing ways of passing information into a beleaguered town (XXXI 15 f.). γράφοιτο δ’ ἂν καὶ εἰς πινάκιον ἡρωϊκὸν ἅπερ ἂν βούλῃ. ἔπειτα καταλευκῶσαι καὶ ξηράναντα γράψαι ἱππέα φωσφόρον ἢ ὅ τι ἂν βούλῃ, ἱματισμὸν λευκὸν καὶ τὸν ἵππον λευκόν· εἰ δὲ μή, καὶ ἄλλῳ χρώματι, πλὴν μέλανος. ἔπειτα δοῦναί τινι ἀναθεῖναι ἐγγὺς τῆς πόλεως εἰς ὃ ἂν τύχῃ ἱερὸν ὡς εὐξάμενον. ὃν δὲ δεῖ ἀναγνῶναι τὰ γεγραμμένα, χρὴ ἐλθόντα εἰς τὸ ἱερὸν καὶ γνόντα τὸ πινάκιον συσσήμῳ τινὶ προσυγκειμένῳ, ἀπενέγκαντα εἰς οἶκον θεῖναι εἰς ἔλαιον. πάντα οὖν τὰ γεγραμμένα φανεῖται.

---

[18] Mrs. C. W. J. Eliot kindly cast an expert eye on the fragment and remarked on the close similarity of texture and technique to those of undoubted Attic fabric.

[19] On dedication of plaques in places other than that of their manufacture, see below p. 194.

[20] Homann-Wedeking, *Vasenornamentik* 28, *AM* LXV 28 f. supports the theory of the existence of a local pottery in Naucratis supplying these votives. Cook objects (*BSA* XLIV 154; *JHS* LVIII 266) as does von Bissing, *BullArchAlex* XXXIX 46 f. The concept of such a daughter factory importing clay and craftsmen and producing pottery no better or worse than that at home seems not unreasonable and makes the pottery no less Chiot.

[21] Cook, *BSA* XLVII 159 ff., gives references.

[22] *E.g.* Akr 309, 368 (perhaps the potter or painter himself). Beazley, *Potter and Painter in Ancient Athens* 40 on bespoke vases.

[23] *AA* 1938, 489 f.

[24] Dunbabin, *BSA* XXXVII 84, 89 ff.

[25] Strabo VIII 374.

[26] Early relief plaques dedicated on Aegina, Furtwängler, *op. cit.* 384, pl. 111. 2, 3; *AE* 1895, pl. 12.

[27] Later references and discussion in Pfuhl, *MuZ* I 38 f., 42 f., 115, 219, 222 f., 307, 411, 490 f.: Rumpf, *MuZ* 10, 29 f., 44.

[28] Beazley, *Development* 1.

[29] *Op. cit.* 11 f.

Benndorf argues that these πινάκια must have been clay, as oil would have rendered wood unserviceable, and in another place [30] Aeneas suggests writing on a πυξίον (a boxwood tablet) and using water to remove the overlying white, in which case the technique of painting described for πινάκια is that employed for the Attic seventh-century polychrome style and later white ground lekythoi.[31] This style of painting on clay vases was not practised in Aeneas' day, though he may be drawing on some fifth-century source, as he does for much of his material,[32] nor are any painted clay plaques with white ground preserved from this period. The spoiling of wood by oil would hardly deter the correspondent within the besieged city from uncovering the writing if it were the only way, and Aeneas is describing a πινάκιον which would pass muster among others of its kind in a sanctuary. In these circumstances we might expect painted wood rather than a clay plaque which would be painted before firing. The other passage quoted by Benndorf in support of clay πινάκια is from Isocrates (*de permut.* 310b). ὥσπερ ἂν εἴ τις Φειδίαν τὸν τὸ τῆς Ἀθηνᾶς ἕδος ἐργασάμενον τολμῴη καλεῖν κοροπλάθον, ἢ Ζεῦξιν καὶ Παῤῥάσιον τὴν αὐτὴν ἔχειν φαίη τέχνην τοῖς τὰ πινάκια γράφουσιν.

The comparison has its point without any need to suppose that the painter of πινάκια, like the κοροπλάθος, worked with clay, and Zeuxis himself is recorded by Pliny as working on or with clay.[33] The word πινάκιον usually describes only tablets or trays; πίναξ [34] embraces a wider field, and is first applied to ships' timbers, *i.e.* planks, and later to flat objects in other materials like bronze.[35] In fifth- and fourth-century inscriptions [36] the term πινάκιον λελευκωμένον appears describing notice boards which must have been wooden, and prepared with a white ground like the πινάκια mentioned by Aeneas. Eventually the commonest use for either word was for painted wooden panels [37] and for trays and plates,[38] the term no doubt being retained from its application to wooden trenchers.[39]

There is in fact no literary evidence for πίνακες or πινάκια of clay other than in the sense of ' plates '; which is, of course, no objection to the use of the terms to describe clay plaques, or to the belief that they were so described: it may be reasonably assumed but not proved. I retain the term ' plaque ' rather than ' pinax ' to avoid the present confusion of Greek πίναξ = ' plate ', πινάκιον = ' plaque '.

Further evidence for the practice of dedicating painted plaques, afforded by representations on vases and the contexts in which they appear, also suggests their nature and perhaps their material.[40] They are often associated with herms standing by a column and an altar,[41] such scenes appearing particularly on lekythoi. Sometimes the cord or wire by which they were hung is shown,[42] otherwise they appear in mid-air and may be thought of as hanging or in some way attached to the wall of the *temenos* or temple.[43] The small scale in which they are depicted does not allow of complicated compositions, and we find only single figures or simple groups of dancers, a siren, a satyr, herms, horsemen, etc.; some seem framed. Twice the association is with the sanctuary of a goddess in which the cult statue stands; on the fragment in the British Museum [44] three plaques hang from a tree in the sanctuary, a position in which they are found elsewhere.[45] They also appear hanging from branches carried by votaries [46] and once by a centaur [47] on a Paestan vase.

---

[30] XXXI 14.

[31] Schöne, *AA* 1892, 121 f., argued on the same lines and had conducted experiments.

[32] Hunter, ΑΙΝΕΙΟΥ ΠΟΛΙΟΡΚΗΤΙΚΑ xvii ff.

[33] *NH* XXXV 66: fecit et figlina opera. Webster (*Oxford Classical Dictionary s.v.* ' Zeuxis ') suggests plaques.

[34] Pollux, *Onom.* X 82–4, Suidas *s.v.*, references in *LS*^{9}.

[35] *Cf.* Benndorf, *op. cit.* 10. Bronze, *e.g.* the map brought to Sparta by Aristagoras of Miletus, Hdt. V 49, 1. Wood, *e.g.* Theophrastus, *Hist. plant.* III 10, 7 (quoted by Benndorf, *op. cit.* 13, n. 55), where the cheap wood used for πινάκια and γραμματεῖα is mentioned.

[36] *IG* I^2 66.31, II^2 1237.62. Wilhelm, *Beiträge zur griechischen Inschriftenkunde* 243 f.

[37] Pollux, *Onom.* VII 128.

[38] *Ibid.* VI 84, VII 162, πίνακες κεράμεοι, the only form known in clay, but these were circular plates not plaques.

[39] The word πίναξ rather than πινάκιον was retained to describe trenchers of silver and bronze, some with handles and feet, which appear so often in temple inventories, *e.g.* *IG* II^2 1428.52, 1440.51 ff., 1474.14 ff.

[40] Benndorf, *op. cit.* 13, Walters, *History of Ancient Pottery* II 156; Pfuhl, *MuZ* I 43, points out that Benndorf included some slit windows also.

[41] Palermo (*CVA* pl. 680.4, *ARV* 475), Naples 3369 (Heydemann 605, *ARV* 346), London BM M 125 (Lenormant and de Witte III 78, *ARV* 484), London BM E 585 (*BCH* LXXVI 606, fig. 9b, *ARV* 474), Berlin F. 2594, Tübingen 1386 (Watzinger pl. 25, E 80), Würzburg (Langlotz 524, pl. 213), and *cf.* *CVA* Florence I, pl. 389.240 (*sic*: Beazley, *Campana Fragments* 22, pl. 14, 26–30, *ARV* 751), and Athens NM 1669, *JdI* LII 55, fig. 13. Brussels A 725 (*CVA* III, pl. 146, 1) is a South Italian example and *cf.* the Apulian vase in Naples (Lenormant and de Witte IV 19). The plaques on Cab. des Méd. 422, another South Italian vase (Buschor, *FR* III 162, pl. 147, Clairmont, *Das Parisurteil* 59), are considered clay by Buschor. Here they hang in a hillside fountain house on whose floor lie two figurines, no doubt terracotta votives. The tablets on Gnathia vases are considered lovers' charms by Webster, *Manchester Memoirs* LXXXIII 203.

A noteworthy representation of plaques appears upon the name vase of the Foundry Painter.[48] The scene is of a bronze worker's factory and on the wall behind the furnace hangs a *boukranion* [49] of the type familiar in the company of herms and altars, from which hang garlands, a male and a female *protome*, and four plaques depicting a standing woman with a torch, a goat, a running figure holding a hammer, and a seated woman. They are painted in the usual silhouette style.[50] These are all clearly votives, the *protomai* being no doubt of clay, and dedicated to Hephaistos by the foundry master to ward off mishap, though not strictly apotropaic themselves as is the figure on the potter's oven which appears on a Corinthian clay plaque from Pente Skouphia.[51] Victors in the games could dedicate their painted εἰκόνες,[52] and one is seen on a vase in Munich [53] carrying his plaque which bears the figure of a runner. None of these representations has any close contemporary counterpart in clay, nor, despite the representations on Italian red-figure vases,[54] have any clay plaques of any period yet been found in the West. All are surely wooden, as are the εἰκονικοὶ πίνακες mentioned in later inscriptions with objects ἀνάξια τοῦ ἱεροῦ and in some way detracting from the dignity of the god's statue. Such, too, no doubt, are the πίνακες referred to by Aeschylus (*Suppl.* 463).

νέοις πίναξι βρέτεα κοσμῆσαι τάδε.[55]

The association of plaques figured on vases with herms and trees, and Aeneas Tacticus' mention of πινάκια ἡρωϊκά in a sanctuary outside a city's walls suggest that such wooden tablets were common in smaller, usually rural sanctuaries. Excavations afford little evidence, but the only wooden painted plaques preserved were dedicated in a cave sanctuary of the Nymphs at Pitsa near Sicyon,[56] and it is worth noting that the archaic white-ground ticket plaques from Attica, probably the closest we can get to the painting on wood which suggested the polychrome style for painting on clay in this period,[57] are from the provincial sanctuary at Eleusis or smaller shrines in Athens, not from the Acropolis. The chthonic connections of these shrines suggest that ἡρωϊκά could as well be applied to the plaques found in them. The Pitsa plaques are admittedly far from being crude rustic dedications, and their decoration compares well with contemporary and earlier dedications of painted clay plaques at the rural Pente Skouphia site near Corinth.[58] The latter include some of the finest examples of Corinthian painting, and the coarser decoration found on many of them reflects less the cheapness of the material than the proximity of the Potters' Quarter in Corinth.[59] At their least elaborate, then, clay plaques are most like their humbler wooden counterparts, at their best they can be considered as valuable as the finest vase dedications on the Acropolis.

---

[42] Cab. des Méd. 839 (Lenormant and de Witte III 80, *ARV* 242), Oxford 305 (*CVA* pl. 99, 1, Gardner, pl. 19, *ARV* 273).

[43] Figured thus in the company of a tree, by the herm and altar, on Berlin F. 2213, Gerhard, *Akad. Abh.* pl. 63.1, *ARV* 482.

[44] BM E 494, the sanctuary of Chryse (*JdI* LII 49; Metzger, *Les Représentations* 195; Rumpf, *Religion der Griechen* fig. 31; *JHS* LXX 36, fig. 1). *Cf.* Naples 1760, Millingen, *Peinture des Vases Grecques*, pl. 52, two plaques with two and three dancing figures.

[45] *Cf.* Naples R.C. 27 (*MA* XXII, pl. 95. 4), Berlin 3974 (Metzger, *op. cit.*, pl. 39. 1: λελευκωμένα), Louvre (*BCH* XIX 103; *Encyclopédie TEL* III 29c, d), and a Paestan vase by Python, Trendall, *Paestan Pottery*, pl. 36 (London BM 1917. 12–10. 1; *BSR* XX 9, no. 147).

[46] *ARV* 153 no. 7.

[47] By Python, Trendall, *op. cit.*, pl. 20a (in Los Angeles; *BSR* XX 10, no. 156).

[48] Berlin F. 2294 (Seltman, *Approach to Greek Art*, pl. 54; *ARV* 263).

[49] Hauser, *FR* III 85, says they are goat horns.

[50] Such a representation is of course no argument against their originals being red figure in painting style, witness the *lebetes gamikoi* and *loutrophoroi* depicted on red figure vases, e.g. *AE* 1897, pl. 10.

[51] *Festschrift für Benndorf* 75 f., and cf. *FR* I 159.

[52] At Olympia, Paus. V 16, 3, and inscribed records of victory (Aristotle, *Pol* 1341a36), or cures—the poor man's equivalent to the inscriptions on marble found in numbers in Asklepieia (*IG* IV^2 121. 24, Strabo VIII 374).

[53] Munich 2315, Benndorf, *op. cit.*, pl. 9, *ÖJh* VIII 41 (*ARV* 191); on the other side he carries his prize amphora. Perhaps it is a victor's plaque that is figured on *CVA* Poland III, pl. 114, 3a (left).

[54] See above notes 41, 45, 47.

[55] A gruesome threat of suicide by the Danaids in this context. It suggests that plaques could be hung on the cult statue itself or at least very close to it. Ribbons were sometimes tied on statues, *e.g.* Paus. VIII 31. 8, X 35. 10.

[56] Payne, *JHS* LV 153 f., *AA* 1934, 194 f., 1935, 197 f., Rumpf, *MuZ* 66, 70. Painted by a Corinthian in a polychrome style; dated by Payne 540–520.

[57] See below pp. 189 f.

Further to the question of the relative value of wood or clay for such dedications we may say that the wood used for major painting, assumed from slight evidence even for the seventh century, may well have been expensive, but the small wooden πινάκια of the later vase representations and inscriptions afforded a material more readily available to the poor worshipper for some roughly-figured decoration than the clay plaques which were deliberately manufactured, often with specified inscriptions. There is nothing ἀνάξιον τῆς θεοῦ among the clay plaques from the Athenian Acropolis.[60] Some leading vase painters whose work can be recognised elsewhere decorated them,[61] as they did the clay funerary plaques [62] of the sixth century.

On such grounds a distinction should be observed between painted clay plaques and the πίνακες or πινάκια—wooden tablets figured on vases and referred to in inscriptions, which may well have been common as early as the seventh century. This leads to a pardonable digression, for painted clay plaques have been adduced as evidence for major painting [63] in the seventh century and the claim, though slightly founded, cannot be ignored. There is no votive plaque whose technique or decoration suggests anything outside the contemporary vase painter's repertoire, and it is to objects like plaques that we should look first for any suggestion of another and independent style. I see no reason to suppose that any such independent style of major painting on wood or plaster in the seventh or sixth century influenced vase or plaque painters, or even necessarily existed. Painting on wood was certainly practised, and the technique, the white ground employed, and the polychrome effect influenced vase painting,[64] particularly the Protoattic styles of the early and middle seventh century,[65] and the ticket plaques of the same date. The Pitsa wooden plaques of much later date illustrate well the technical points of ground and colour,[66] but polychromy on vases does not presuppose major painting, only painting on wood, and there is nothing in the drawing on vases to suggest its influence. Points such as overlapping compositions suggesting depth represented a logical progression in the painter's art, and the scale of the figures—be they the miniatures of the Chigi vase [67] or figures of the proportions of the Thermon metopes [68]—makes no difference. With the same comparison in mind, the use of thinned or brown paint within outlines instead of incised silhouette would be required by painting on a larger plaque or metope scale, whatever the material, where black masses would be avoided and incision deep enough to show up would seem clumsy.[69] Robertson has made a case for the seniority of the vase painter's art over that of major painting in the geometric period,[70] and in fact there is no good evidence for an independent style of major painting on wood or wall until the fifth century.[71] Larger works like the Thermon metopes belong to the traditions of vase painting, as do the Nessos Painter and Exekias plaques,[72] and the only painting preserved on wood observes the conventions of the vase painter while enjoying the greater polychromy that its medium allows. The principles of composition and proportion must have been the same for both: the development of these principles lay with the vase painter whose art must have been the senior. To argue from lack of evidence is, to say the least, unwise: fresco decoration could well have been executed in a manner which was not likely to ensure its preservation to the present day,[73] and little wood has survived at all. What we can say is that from the seventh century to the fifth vase painting was a live art, and that its decadence dates from a time for which we have reliable literary testimony to the independence and importance of major painting. When the painter on wood or wall could add to his more varied polychromy the effects of perspective and shading which he could deploy on his larger field, he outpaced the vase painter who, being led to imitate him, tried to outgrow the limitations of his medium and surrendered the primacy of his art. The independent style of major painting in the fifth century wins for its artists the literary record of their names[74] in the work of authors like Pliny, for whom the traditions of wall painting were still alive and those of vase painting long forgotten.[75] Before their day the vase painter was the master of the genre,[76] and it was the vase painter who painted votive plaques.

---

[58] *AD* I pll. 7, 8, II pll. 23, 24, 29, 30, 39, 40 and *JdI* XII 9 ff. for the Berlin Collection. Others are in the Louvre, *e.g.* Collignon, *Mon. grecs.* 1882–1897, 23 ff. and *Gaz.Arch.* 1880, 101 ff.

[59] Where similar painted plaques have been found, *AJA* XXXV 21 ff. Some were found at Perachora too (see *Studies Presented to D. M. Robinson* II 1183, no. 4) and, so Mr. Papadimitriou tells me, at Epidaurus.

[60] Potters or their associates seem to have tried their hand at painting in Athens, Akr 2579, pl. 109, as at Corinth; for Corinth, references in n. 58, *passim* for amateur scenes of pot-making and oven-tending as well as the painters' own contributions on the same theme in professional style.

[61] Nessos Painter, Cerberus Painter, Euphiletos Painter, Ryecroft Painter, Skythes, Nikoxenos Painter.

[62] Sophilos, Lydos, Exekias, perhaps the Kleophrades Painter (Epiktetos II), and the humbler Sappho Painter among others.

[63] By ' major painting ' I mean here what is often alternatively called free painting or *Grossmalerei*, that is an independent style of painting on wood or wall on a larger scale than vase painting and employing probably the freer composition which its scale and medium permits. Evidence for it requires either a preserved original or a significant change in a parallel art form (*e.g.* the vase painter's) which can only be attributed to its influence. The inch-high figures on the Chigi vase can be magnified a hundredfold on a screen with no loss of effect, but this is not evidence that the painter or his contemporaries could conceive compositions or figures monumentally.

[64] *Cf.* on major painting and its relations to vase painting Pfuhl, *MuZ* I 12 f., 104, 210 f., 490 ff.; Payne, *NC* 93 f., 96 ff.; Rumpf, *MuZ* 10 f., 29 f., 34, 58, 71 ff. *passim*; Benson, *Die Geschichte der korinthischen Vasen* 88 ff.; Kraiker, *Aigina* 18 f. and *DLZ* LXXIII 555 f., where he cites the metope-like plaques of the late seventh and early sixth centuries (below pp. 191 f.), the work of vase painters on a scale matched by contemporary vases, *cf.* Kraiker, *Aigina*, pl. 47. Painting on marble (Pfuhl, *MuZ* I 12 f.; Rumpf, *MuZ* 10, 29) and sculpture do not seem to merit special mention here but for the fact that their material allowed greater variety of colour than did baked clay. Schefold, *Die Antike* XVIII 76, cites the Tiryns shields (Lorimer, *Homer and the Monuments*, pll. 9, 10; Rumpf, *MuZ* 26, pl. 5, 7), which, if Argive or Tirynthian, need not be as early as 700, while the figure scale can be paralleled on contemporary vases.

[65] Kübler, *Altattische Malerei*, pll. 53–55.

I have shown above that literary and representational record of clay plaques is lacking, but the objects themselves form a body of material large enough to justify some generalisations. As works of art they must be considered in the light of our knowledge of vase painting; as votive objects they are inseparable from similar small votives in other forms and other materials. The form of dedication would naturally recommend itself most to vast painting centres, and most in fact come from Athens or Corinth or sites near these cities. Their decoration is therefore from the vase painter's repertoire, but as their purpose is specific [77] and only in part decorative, the choice of decoration is limited.[78] The archaic artist always painted with a purpose, and objects intended for dedication were decorated accordingly, though the quality of their painting itself sometimes lent their work its value as votive offerings. I enlarge on this point below in considering the earlier votive plaques: the sixth-century examples from Athens and Eleusis and the Corinthian series respond most readily to this approach.

---

[66] Above n. 56. Cf. *AA* 1937, 210, fig. 6. Painting on wood seems probable for small objects as boxes, footstools, or plaques in this period.

[67] Payne, *PV* pll. 27–29. The experiment was only moderately successful and did not inspire emulation, *cf.* Robertson, *BSA* XLVI 155.

[68] Pfuhl, *MuZ* III, figs. 480–483.

[69] An outline was roughly incised before painting on the Thermon metopes (*AD* II 5, pl. 5; Kähler, *Das griechische Metopenbild* pl. 18), but not on those from Calydon (Dyggve, *Das Laphrion* 151). See also Broneer, *Hesp* VII 226 f.

[70] *BSA* XLVI 153 ff., with a fine account of the declining art in the fifth century and its recourse to white ground painting again.

[71] The Etruscan tomb paintings of the sixth century reflect closely Greek, particularly Ionic, vase-painting conventions and styles. For the most part they are no more than the contemporary graecising vase painting writ large (Caeretan, Pontic: only later are they completely atticised), rejoicing in colour (as did the vases) and the opportunity afforded by the burials in chamber tombs with walls for decoration. They are a developed product of local vase painting, not evidence for monumental work in Greece proper. References and comparisons in Rumpf, *MuZ* 29 f., 46, 53 f.

[72] Below p. 200, no. 1; Technau, *Exekias*, pll. 14–18, 19 a, b.

[73] Cook, Γέρας 'Αντωνίου Κεραμοπούλλου 117, n. 1.

[74] Rumpf, *JHS* LXVII 10 f.; *MuZ* 34 on the fact that the earliest painters recorded by Pliny are merely names to us.

[75] Some antiquarian interest may have lingered, *cf.* Payne, *NC* 348 f.

[76] Milonidas the Corinthian proudly dedicates his own work, a plaque (Hoppin, *Black Figure Vases* 10 f.). For potters' and painters' dedications on the Acropolis, and familiarity with high society implicit in *kalos*-inscriptions (which might have been ordered by the purchaser in some cases, though hardly for export to Italy), see Raubitschek, *Dedications from the Athenian Akropolis* 465.

The closest votive counterparts to the painted plaques, similar in form and purpose, are the clay relief plaques found on most temple sites.[79] These on the whole exhibit a narrower range of subjects, limited by the mould and missing the free expression of the brush. Akin are the relief limestone plaques of Sparta [80] and the more valuable ivory and bone plaques from the same site.[81] Some bronze reliefs may have been mounted on wood and dedicated independently, as were some incised bronze plaques.[82] The mode of suspension and scale of relief plaques are as in the painted ones, but their decoration is often influenced by metope sculpture, in the use, for instance, of a raised band at the base of the plaque,[83] and sometimes by the stamped decoration of larger vases.[84]

In shape the painted plaques seldom vary from the simple rectangular. Those decorated on one side only have sometimes warped in firing, and their surfaces are slightly convex: these must have been laid flat in the kiln for this to happen. One black figure example in New York is deliberately curved like a miniature tile; another, from the Acropolis, is twice as thick in the centre as at the sides.[85] The backs of one-sided Attic plaques are smoothed without always being properly finished, and though some serve for an inscription [86] or a rough sketch,[87] most are not painted.[88] On some appears the impression of the flat surface on which they were prepared.[89] Except for the very best, they do not have a uniform thickness over their whole area, and may not be quite rectangular. An overhanging ridge at the upper edge is found on a few, and one has a raised border all round, similar to those of many relief plaques.[90] One Corinthian plaque has a moulded top decorated in a way comparable to that of Corinthian clay altars of about the same period,[91] while on Attic plaques such a moulding is simpler,[92] and most are of the red figure period.[93] A lightly grooved border to the figured scene is not uncommon.[94] Late red figure Attic plaques are found in *naïskos* form with moulded sides and pediment with palmette akroteria; the most famous of these is the Ninnion plaque from Eleusis, and the form is probably suggested by the marble votive reliefs of this shape.[95] A black figure plaque with a temple scene and sloping edge above the pediment may be associated with these.[96] Curved ends are found on some plaques from the Acropolis,[97] but must not be confused with votive discs.[98] In size they may vary from midgets less than 3·0 cm. across [99] to the Eleusis fragments from a *naïskos* plaque whose full width must have been about one metre.[100]

---

[77] Langlotz, *Akropolis Vasen* II viii cites the love scenes on some Acropolis vases as inappropriate for dedications and as possible evidence that some of the earth for the filling south of the earlier Parthenon and the fragments with it were carried from the lower city to the Acropolis, but erotic scenes occur on a votive plaque, which might, I suppose, have been dedicated by a courtesan (Akr 1040, pl. 81). The Greeks were not prudish about this, *cf.* the unusually intimate *hieros gamos* of the Thermon metope *AD* II, pl. 53, which adorned the exterior of a temple.

[78] I note here, without recommending them, Fivel's suggestions (*GazArch* 1883, 177) that the inscription on Akr 2571, pl. 108 be restored so that we read ἀποτρόπαιον, and that the plaques were apotropaic.

[79] Even among the rich painted series from Pente Skouphia in Berlin, F. 541, 761. *AD* II, pl. 24. 27, 29. 30.

[80] *Artemis Orthia* 187 ff., pll. 64 ff. [81] *Ibid.* 204 ff., pll. 91 ff.

[82] Difficult to identify. Many are shield ornaments, and most of the others could have been fixed to wooden bases, boxes, or furniture. *Cf.* Delphi, *BCH* XLV 309 ff. and Bonn, *AA* 1935, 452, 461, fig. 40. From Argos, Vollgraff *ILN* 1930, Dec. 13, 1065, a mounted warrior and the inscription a curse on Enyalios: apparently a pacifist's offering. Shape and suspension as for the clay relief plaque with a lion *Argive Heraeum* II, pl. 49. 9.

[83] Casson, *Catalogue of the Acropolis Museum* II 416 f.

[84] Mycenae plaque, *BSA* XLVIII 62, no. 13, from the same stamp as that used for a tripod vase fragment from the Argive Heraeum, *Hesp* XXI, pl. 72.

[85] 21. 88. 81, Richter *Handbook* (1953), 296 n. 77, and another in Eleusis, *Hesp* IX 230, no. 233, fig. 45.

[86] Akr 2498, pl. 101, εποιε[σεν . . .]δες: Akr 2517, pl. 103 and p. 262 (here the two fragments are not drawn on the same scale: the E on one is in the same line as the IVE on the other, and two letters are missing between them); Rumpf suggested that the inscription might be restored E[υφ]ιλε[τος κ]αλ[ος (*Gnomon* XIV 455, *cf.* Peters, *Studien zu Preisamphoren* 22 f.) and study of the fragments leads one to think this correct; by the Euphiletos Painter, Beazley, *AJA* XLVII 443, no. 12.

[87] On the unslipped back of the white ground plaque Akr 2590 the painted sketch of another Athena. A fragment in England noted by Hartwig joins both Akr 2590 a and b and preserves most of the sketch. It is now in Oxford, Beazley, *JHS* LI 53. *Cf.* also Akr 2495, pl. 103.

[88] The following plaques have painted backs, usually with only a light glaze or paint wash: Akr 2512, 2536, 2538, 2557, *Hesp* IX 233 f. nos. 243, 248, and an unpublished Acropolis fragment.

[89] Akr 2502, 2539, 2577, 2593 (deep wood graining); Akr 2524, possibly matting impression; Akr 2573, the back cut level with a knife. [90] Akr 2573, pl. 108.

[91] F. 486, *AD* I, pl. 7, 25; cf. *Hesp* XVI 222, pl. 51, XIX, pl. 110, *Corinth* XV 2, pl. 58. 60. [92] Akr 2513, pl. 103.

The plaques are usually pierced with holes permitting their suspension [101] against a wall. Sometimes also they hung free, as is suggested by the double plaques with decoration on both sides. Alternatively, they may have been nailed on to wood, which seems the usual practice with larger plaques of the red figure period—witness the holes in the lower corners and sides.[102] The holes are cut either more or less carefully, that is to say the surface has been smoothed again and the surplus clay removed, or ridges are left around the holes at front and back. In the thicker Attic plaques the holes are cut either from the face, or from both sides giving an hour-glass section, and in one a hole was rather carelessly cut out after firing.[103] An archaic fragment from the Agora has holes which were not completely pierced.[104] The holes may appear at the centre of each side, at each corner, or, as is most common, only at the top of the plaque. When they are in pairs close together the probability is that the plaque was suspended by thongs or cord.[105] They are sometimes found at the sides only.[106] Some plaques, mostly Attic, have no suspension holes and must have been laid on tables or shelves.[107] Double plaques are sometimes treated differently: Attic examples have each face oriented in the same direction, but on some Corinthian plaques the edge serving as the bottom of the picture on one side serves as the top [108] or side [109] on the other. One preserves the upper part of the main side with a hole in one corner only: on the other side this hole is at the bottom of the picture,[110] which suggests that it was to permit suspension in a place where the plaque would not be seen, that is to say in the kiln for firing. This is, I think, a prime purpose for the holes in such double plaques, whose edges are often also glazed or painted red.[111]

---

[93] Akr 1041, 1042, 1051, pll. 81, 82; Athens NM 1244, *RM* XLII Beil. 14.

[94] Akr 2557, pl. 106, and an unpublished red figure fragment from the Acropolis. *Cf.* below p. 196, ACROPOLIS no. 5.

[95] Athens, NM 11036, *AE* 1901, pl. 1 (Nilsson, *Archiv für Religionswissenschaft* XXXII 92 ff. discusses fully, and cf. *Geschichte der griechischen Religion* 441, 444, *NumChron* 1941, 5); Eleusis, *AE* 1901 pl. 2; other frr. in Eleusis; Berlin 2759, Benndorf, *op. cit.* pl 4. 2, *ÖJh* I 89, fig. 38, Nilsson, *op. cit.* 412; Tübingen 1646, Watzinger E 176, pl. 39; Pnyx PN P-87. An earlier red figure example may be Akr 1047, pl. 82, in view of the fragment from the N. Slope excavations preserving its broken raised border (*Hesp* IV 239, no. 28, fig. 12; other fragments of the plaque are among unpublished N. Slope pottery, A–P 3267 a and b, the former joining Akr 1047 a).

[96] Akr 2549, pl. 105 (*JdI* XXXV 110, fig. 10); *cf.* Akr 2550, pl. 105, whose upper edge seems to rise in a similar way.

[97] Akr 2499–2501, pll. 102, 104, and N. Slope A–P 1277, *Hesp* IX 232, no. 237, fig. 45. *Cf.* below p. 196, ACROPOLIS no. 9.

[98] As NM 2411, *AE* 1886, 120, pl. 8. 2, Collignon-Couve *Cat.* no. 852, which may nonetheless be a plate. The circular plaques mentioned by Feytmans (*L'Antiquité Classique* XVII 184 n. 4) are plates which were made without rims because they were never intended for use other than as dedications.

[99] *Hesp* IX 233, no. 242, fig. 45, Akr 2535, pl. 104.

[100] *AE* 1901, 41, pl. 2, and from the sixth century *cf.* the scale of Akr 2493, pl. 101. On the metope-like plaques whose identification as dedications is disputed, see below p. 200.

[101] The references in Benndorf *op. cit.* 16 are to the hanging or affixing of wooden *pinakes*; *cf.* Pfuhl, *MuZ* I 222 f., 307.

[102] Akr 1043, 1045, pl. 81, *AE* 1901, pl. 1.

[103] Akr 2527, pl. 104, with marks of a pointed tool on the front and a large flake broken off behind.

[104] Below p. 198, AGORA, no. 5: it is fragmentary, so that holes in the corners not preserved may have been completely cut.

[105] Berlin F. 942 (Roehl, *IGA*, no. 20. 103) bears the inscription ανοτοδεονε . . . of which the ἄνω τόδε suggests hanging up; the fragment preserves two suspension holes, *cf.* the holes and string grooves of the relief plaque *Corinth* XII, pl. 16. 212.

[106] Corinthian, Furtwängler, *op. cit.* 47, cites F. 885 (*AD* I, pl. 8. 14) but there is room for holes above and below on this fragment. However, a Louvre plaque has one only at the side, *GazArch* 1880, 106, fig. 3, Perrot-Chipiez IX 573, fig. 283, and *cf.* an East Greek example from Smyrna, below p. 199.

[107] *E.g.* Akr 2535, 2574, 2575, Noack, *Eleusis* 12, fig. 4. Corinthian, perhaps F. 539 etc. (*JdI* XII 23, fig. 14) F. 351, 352, 452 (*AD* II, pll. 24. 11, 29. 6, 40. 3) preserve only the upper part of the plaque and have no holes.

[108] F. 889, *AD* II pl. 39. 17.

[109] F. 802, *AD* I, pl. 8. 4 and 11, pl. 23. 17, Louvre, Rayet-Collignon, *Histoire de la Céramique Grecque* xiii, fig. 4, 146, fig. 65.

[110] F. 882, *AD* II, pl. 29. 1, 4, *cf.* F. 873, *AD* I, pl. 7. 16.

The position of these plaques as dedications within a sanctuary or temple raises problems of the internal arrangement and furniture of sacred precincts [112] which we cannot pursue in any great detail here. In rural sanctuaries such as Pente Skouphia they could hang from trees, as did the wooden tablets, or, if not pierced with holes, be laid around the altar or cult statue. Even such rural sanctuaries must have had some *oikos* of wood or mudbrick for the statue, cult impedimenta, or offerings, as is suggested by the column associated with herms and altars, in which case wooden shelves and tables could be used for smaller dedications as well as the ground. Investigators of the dump of Corinthian votive plaques at Pente Skouphia reported [113] no trace of architectural remains in the vicinity, and a rural shrine needs no more than a *temenos* fence enclosing trees, which would then be the property of the god, an altar, and probably a single-room *oikos* for the statue and offerings. Within temples [114] painted plaques would be placed with other small votives, such as terracotta figurines, or wreaths, fibulae, plates, shields, etc., which could be hung up.[115] In the Asklepieion at Corinth Roebuck remarks on the iron grip still preserved in a votive clay arm to allow its suspension, but he considers that thongs were more often used, and no votive plaque that I have examined preserves evidence of any metal attachment.[116] At the same sanctuary the shapes of the votives suggest shelves, suspension on a wall, and free suspension, and on a Boeotian red figure vase in Athens [117] votive limbs and wreaths are seen hanging, apparently on a wall. For arrangements within temple buildings the accounts of the ἱεροποιοί and temple inventories of a later date give some indications. The disposition of objects on tables, shelves, and the floor, and hanging or fixed to the wall and over doors is described in such inscriptions, particularly from Delos, Athens, and Aegina.[118] The πίνακες mentioned in these inscriptions are plates, or paintings on wood, but the arrangement of the earlier painted clay plaques must have been similar.

The history of painted plaques is, as we would expect, roughly co-extensive with that of figured vase painting. To sketch the outlines only, the earliest are of the late geometric period of the second half of the eighth century. From the seventh century come examples painted in the Protoattic manner and the polychrome style, probably suggested by their humble wooden equivalents, while by the second half of the century begins the Corinthian series which continues to the end of the next century if not later. The sixth century provides many Attic plaques and the fifth a few, but by the fourth century almost the only type found is of the *naïskos* form, and these examples, with one unusual exception, a 'funeral banquet' plaque,[119] end the series.

They do not form a distinct type of votive offering, nor are they the perquisite of any one deity. Their manufacture was occasioned by the presence of a flourishing vase-painting industry, where painted clay was valued and where, on the other hand, less elaborately decorated plaques could be cheaply produced. Thus most are found in Attica [120] or Corinthia:

---

[111] I have noticed no trace of 'legs' on which the double plaques might have been supported flat in the kiln and which would have left a mark on the surface. Generally double plaques retain their shape better than the one-sided plaques which often warped in firing. Considerations of firing would explain the holes in such objects as the disc-spool, Richter and Hall, *Red Figure Athenian Vases* 104 f., pl. 76, as easily as considerations of votive suspension.

[112] Rouse, *Greek Votive Offerings* (1902), 342 ff., reviews the evidence available when he wrote.

[113] Furtwängler, *Beschreibung* 47 f.

[114] *Cf.* Langlotz, *Die antiken Vasen von der Akropolis* II viii.

[115] *IG* IV 1588, Feytmans, *AntClass* XVII 192, *Corinth* XV 2, 216 ff.

[116] *Corinth* XIV 116, pl. 36, no. 60. A funerary plaque in Vienna preserves parts of iron nails in three of its corner holes, *AA* 1893, 196 f.

[117] *AM* LXV 19 f., pl. 26. 2.

[118] Above n. 115. Homolle in *BCH* VI 105 ff. summarises the evidence of the Delian inscriptions, and those since published add little to his account. Rouse, *op. cit.* 342 ff., 394 ff., gives the most important references. Nails for dedications in the *Plinthinos Oikos* on Delos, in *IG* XI 165. 18.

[119] *RM* XLII Beil. 14 (Schefold, *UKV* 119).

[120] *Cf.* Richter, *BSA* XI 234 ff.

exceptions are a few East Greek pieces and possible ' Melian ' and Argive.[121] Many are inscribed, but the dedicator's name appears, unexpectedly, far less often than that of the god. Painter and potter sign occasionally out of pride or for advertisement,[122] and καλός inscriptions are found.[123]

Apart from a few notable exceptions, they did not travel far from their place of manufacture. The fragment from Aegina published here (PLATE 16, 1 and FIG. 1) was bespoken, with its inscription, in Attica and taken to Aegina for dedication. Of the black figure plaques from the Acropolis in Athens and Eleusis some seem provincial but are still probably Attic, and at Eleusis some may have been made locally. One certainly Corinthian fragment from the Athenian Acropolis[124] was clearly bespoken for dedication there with its appropriate scene of the Birth of Athena, not found elsewhere in Corinthian vase painting: even its inscription seems atticised. An Attic plaque in Berlin is supposed to be from the Peloponnese,[125] but the similarity of its subject to that of an Acropolis plaque and the probable presence of Athena suggests that it may be an early Acropolis stray. A ' Melian ' fragment, if it is from a plaque, was dedicated on Delos,[126] understandably in view of the rich series of vases of this fabric from graves on the island.[127]

A note of warning is not amiss here. It is not always easy to identify a fragment of a painted plaque and to distinguish it from any other painted clay artefact. A straight edge, flat surface, unpainted back with no trace of wheel marks[128] and even suspension holes are not always enough, and, as their appearance may be significant in indicating the presence of a sanctuary, extra caution is justified.[129] Protogeometric, geometric, and archaic painted clay boxes are found as offerings in sanctuaries and in tombs. They are found on the Acropolis,[130] and Graef observes that their insides are not as well finished as the backs of plaques.[131] Their lids do not always have flanges beneath, and may be pierced with holes for fastening.[132] House or temple models present a further possibility, and their doors may appear as flat plaques with holes for fixing a thong hinge,[133] while the bodies of cart models may also be flat pierced plaques.[134] Parts of simple furniture, mirror- or tile-models may also deceive.[135] ' Offering plates ' of the Argive type are usually glazed on the inside unlike plaques.[136] Small fragments of large, thick-walled geometric vases often bear no clear wheel marks, or they are so rough as to be easily mistaken for non-mechanical smoothing and are practically flat. Parts of the fenestrated feet of amphorae or stands [137] would preserve finished straight edges which can mislead, and plaques that have warped in firing would present a similarly curved surface; some in fact were deliberately made curved like miniature cover tiles.[138] Polychrome decoration on a white ground is found on the flat drapery of seated and standing female clay figurines from Boeotia, Athens, and Corinth.[139] In the black figure period tripod-pyxis legs are usually unpainted behind and their edges, as in many plaques, are often painted red. The unusual Kerameikos *Klagefrauen* stand is noteworthy,[140] as are votive discs whose surface may not have been finished on a wheel so as to leave turning marks. As can thus be seen, mistakes are possible, and must to some extent be considered excusable.

---

[121] Below p. 199.

[122] Corinthian, Berlin F. 846, Hoppin, *Black Figure Vases* 14 f., painter Timonidas; Louvre, *ibid.* 10 f., painter and dedicator Milonidas; Berlin F. 495, 524 and Louvre, Collignon, *MonGrecs* 1882–1897, 28, fig. 5 (*IG* IV 222–224: I take αὐτόποια to suggest a potter's dedication), and *cf.* Berlin F. 422, 908, 937, *JdI* XII 14 f. Attic, Akr 2498, pl. 101, potter's name on undecorated back; Akr 2557, pl. 106 and 2586, pl. 110, painter Skythes; and Akr 2556, pl. 106 dedicated by him; Akr 2583, painter Paseas; r.f. Akr 2519, τ̣ιμαρχος⁝με[γραψεν, or με[ποιεσεν; enough of the initial τ is preserved to make it probable: the last partly preserved letter cannot be α[νεθεκεν as restored by Langlotz, for enough is left to prove it an ε. This must be the piece mentioned by Nicole, *RA* IV 385, no. 55, Pfuhl *MuZ* I 292, establishing a new painter's or potter's name: a Timarchos dedicated a statue by Onatas on the Acropolis, Raubitschek, *op. cit.* 272 f. and another (?) is called *kalos* by the Syriskos Painter, *ARV* 198, no. 39, in the early fifth century. Some metrical dedications by potters in Friedländer and Hoffleit, *Epigrammata* 40 f., 107 f.

[123] Akr 2500, pl. 104, 2517 (see n. 86); r.f., 1045, pl. 81, 1046; *cf.* example in Chicago, *AJA* XLVII 401 fig. 22.

[124] Akr 2578, pl. 109, Payne *NC* 142.

[125] Museum of Prehistory, Schliemann Collection 11187; Beazley, *AJA* XXXIX 477 f., fig. 2, XLV 595; *cf.* Akr 2560.

[126] Below p. 199. [127] References in *BSA* XLVII 24. [128] On the backs of one-sided plaques see above p. 191.

[129] Wolters *JdI* XIV 127, where the presence of plaque fragments is adduced as evidence for a Greek hero cult over the dromos of the Mycenean tomb at Menidi.

[130] Akr 271, 276 -285 (278 and 281 belong together). Cf. *Kerameikos* I, pl. 59, IV, pll. 3, 36, *BCH* LXXIII 526, fig. 8. There are black and red figure miniature altars and boxes, e.g. *CVA* Braunschweig, pl. 174. 3, 4.

[131] Text to Akr 281. [132] Boeotian, Berlin 306, *JdI* III 357.

[133] Argive from the Heraeum, Perachora, cf. *Studies presented to D. M. Robinson* I 259 ff.; Ithaca, *BSA* XLIII 101 f. Possibly Argive is *BCH* LXXVI 202, fig. 1 (*JHS* LXXII 93): if so perhaps the only Argive fragment from the Acropolis; Akr 265, pl. 11, need not be anything other than Attic. For the door *cf.* the Knossos tomb model *JHS* LXIV 87, fig. 4.

[134] *Corinth* XV 2, pl. 43, XXXII 6, pl. 44, XXXII 2, 7.

[135] *Ibid.* pl. 44, XXXIII 22, pl. 46, XXXIV 1, 2, XXXIII 3, 4.

[136] Probably intended for a cult use requiring something wet or greasy to be carried in them. Their handles enabled them to be suspended afterwards as dedications. Examples from Aegina, Kraiker, *Aigina* nos. 66–68, pl. 5; his no. 58, pl. 4 is published as an Attic offering plate without inner glaze, but may be a box as are the other Attic pieces he cites on *ibid.* 29; but *cf.* Akr 271, pl. 11, lid (?) which is glazed within.

PAINTED VOTIVE PLAQUES OF THE EIGHTH AND SEVENTH CENTURIES

The plaques listed below represent all geometric and seventh-century plaques, complete or fragmentary, known to me.[141] Of the type with plastic additions I include only those which deserve mention, together with those simply painted,[142] and omit some early black figure although of the seventh century. One or two are doubtfully plaques, and I express my misgivings and reasons in the catalogue. I exclude all Corinthian and all Attic black and red figure plaques to which I hope to return at another time. At the end is a discussion of some metope-like plaques, mostly of a later date, and their possible significance. The list is purely descriptive with comment on date and style, and is followed by a discussion of the objects as votives, and their decoration.

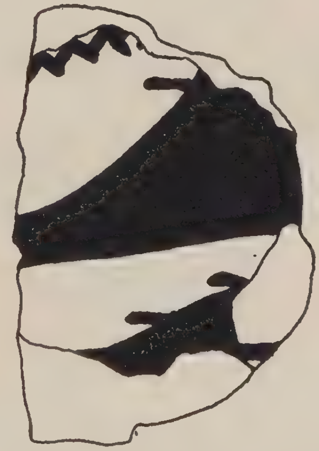


FIG. 2.—ACROPOLIS NO. 1 (FULL SIZE).

Athens, ACROPOLIS. These [143] include fragments excavated on the North Slope and are from sanctuaries or temples of which no trace in this period is now preserved within the Acropolis wall.

---

[137] E.g. *CVA* Berlin I, pll. 54, 61, 71, 73, 84.

[138] Above p. 191.

[139] *Cf.* Higgins, *Catalogue of Terracottas in the British Museum*, pl. 100 ff.

[140] The ' *Votivpinakes* ' with the forepart of a lion, mentioned in *AA* 1933, 279, have since been restored to form a stand for the mourning women, *ibid.* 281, fig. 16: Inst. Phot. 2657, 3607. The backs are unpainted.

[141] I have not personally examined the following—ACROPOLIS no. 4, SUNIUM nos. 1, 2 ,3, exx. from MENIDI, DELOS, LARISA.

[142] There are others with added plastic heads in the Kerameikos.

[143] On the provenance of nos. 2, 8, see *JHS* LXXII 93.

1. N. Slope. Well A. A–P 1682. A: FIG. 2; B: *Hesp* IX 164, no. 25, fig. 14. Thickness 0·9 cm. Fragment of a double plaque. I figure here what must be the main side. It shows not 'large hooked spirals with projecting points' but the bows of a ship with zigzag filling above and a fish below. The style is easily paralleled, cf. *BSA* XLIV 98, fig. 2, pl. 38. 2 and 39. 2. On the horizontal protrusion, *ibid.* 126. On the back, lozenge chains between vertical parallel lines. Late Geometric.

2. Athens, National Museum. PLATE 16, 2. Greatest length 5·3 cm., thickness 0·9 cm. A: part of the bows of a ship, with an animal's leg and foot before it and the fin of a fish below (*cf.* no. 1, FIG. 2). B: leg of a man to the left and part of a border with curvilinear decoration (no doubt hooks or hooked lozenges as on *BSA* XXXV, pl. 38 b, 40 a, 41, and cf. *ibid.* 175, fig. 1, for the figure drawing). Decoration and animal and figure drawing seem advanced for Geometric, and make the fragment a close contemporary of the Sunium ship plaque (below). The animal on A must be a bird, despite the feline-like claw; *cf.* birds by ships on *BSA* XLIV, pl. 38. 2 and 40. 1. Near 700.

3. N. Slope. Well A. A–P 2497. *Hesp* IX 163, no. 19, fig. 13. Thickness 0·8 cm., uneven surface. Fragment of a double plaque. Diagonal lines on the edge. A: upper border of framed zigzag, warrior. B: maeander pattern below a similar border. Late Geometric.

4. Akr 286, pl. 10. Fragment with transverse lines on preserved edge and one suspension hole. Woman with wreath to the right, behind her '*der Gegenstand . . . und der Rest . . . nicht verständlich*' seem to be the forehead of a horse and a five-pronged object which may, surprisingly, be a winnowing fork.[144] The cutting of the suspension hole seems to have grooved the surface of the plaque around it. Pfuhl (*MuZ* I 39, 42) cites this as the earliest plaque. Late Geometric.

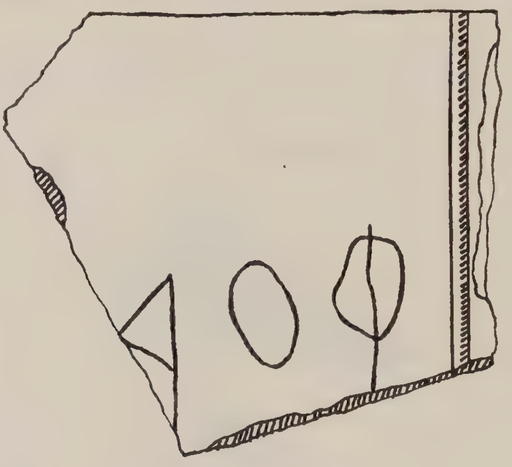


Fig. 3.—Acropolis No. 8 (Full Size).

5. Akr 287. Fragment. Thickness 1·0 cm. Side border of transverse lines. Man with long hair to the right. A groove parallel to the edge, and the back which is noticeably thicker at the edge, suggest that this could be from the lid of a box. Late Geometric.

6. Athens, National Museum. Two unpublished fragments broken all round. (*a*) width 11·0 cm., thickness 1·3 cm.: hind legs of four horses (drawing a chariot) above a diamond net band edged by three lines. (*b*) height 4·9 cm., thickness 1·25 cm.: two warriors with shields and two lances to the right below three lines. Late Geometric.

7. N. Slope. Well A (depth 12·20–13·80 m.). A–P 1939. Length 5·2 cm., thickness 1·2–1·6 cm. Rim of a plaque. Below a lozenge band tips of spears and hatched diamond filling ornament. The back is glazed, but for two reserved lines near the edge, which bears a crude zigzag chain.

8. Athens, National Museum. Fragments decorated in the mid-seventh-century polychrome style on white ground. The patterns are not clear on any, though one seems to preserve the foot and the dress of a figure to the left and a maeander border below; another is the corner with a suspension hole and a red upper border possibly in maeander form. One fragment has a raised ridge at one edge painted red and another a curved edge. A fragment with traces of paint on a grooved edge bears the graffito ϙορ - - retrograde, FIG. 3, probably not postdating by much the manufacture of the plaque. An unusual fragment which may not be of a plaque is flat on one side with its edge painted red, and on the other side bears two ridges running parallel to the edge and traces of blue on the heavy white ground.

9. N. Slope. Well A. A–P 1664 and 2524. *Hesp* IX 164 ff., nos. 26 and 27, fig. 14. Fragments decorated in a polychrome and white ground style with raised outlines suggesting that the plaque was prepared from a flat mould. Part

---

[144] References in Ure, *JHS* LXIX 19, 22 f. and cf. *Corinth* XV 2, 226, *RM* XIV 78 ff. They appear both handleless and with short or long handles. Professor Smith identifies the four-pronged shield device on *CVA* San Francisco I, pl. 465, as 'a fishing fork, not Poseidon's attribute'. Poseidon's trident can boast more prongs (Cook, *Zeus* II 786 f., Corinthian plaques F. 347, 385, 464, 460, *AD* II pl. 24. 8, 6; I pl. 7. 2, 24) and, triple pronged, is associated with fishing (F. 882, *AD* II pl. 29. 1, 4—if Poseidon's) and hunting (F. 899, *AD* II pl. 7. 27: a favourite weapon for Calydonian boar hunting, *cf.* Hoppin, *Black Figure Vases* 61, Vatican 306, Albizatti pl. 29, *Bulletin of the Museum of Fine Arts, Boston* XLVI 42 ff.)

of a naked man on a horse and the corner of a *kithara* are figured. The object hanging down from the rider's hands may be the rein ends, or more probably the end of a stick or branch he is carrying. The shallow-bellied horse resembles more those on the Piraeus amphora (Kübler, *Altattische Malerei*, pl. 69) than the Nessos Painter's work (*CVA* Berlin I, pl. 92. 2), and so may be contemporary with the beginnings of true black figure in Attica, 630–620 B.C. The drawing of the human figure is too developed to be earlier (*cf.* the riders of Kübler, *op. cit.* pll. 70, 88).

10. N. Slope. Well E (depth 9·30–10·40 m.). A–P 2372. FIG. 4. Rim of a plaque? Its surface is uneven and the back very rough; thick at the edge (2·0 cm.) it becomes thinner (1·6 cm.) and at the lower break thickens to 2·1 cm. Buff-yellowish clay, but probably Attic. It was not made on a wheel, but I am not sure that it is a plaque. On the edge, panels with rays, zigzags and birds: on the face, the shoulder of an animal, its tail and much simple filling ornament. For the cable pattern as filling cf. *CVA* Berlin I, pl. 82. 2. Third quarter of the seventh century at the earliest.

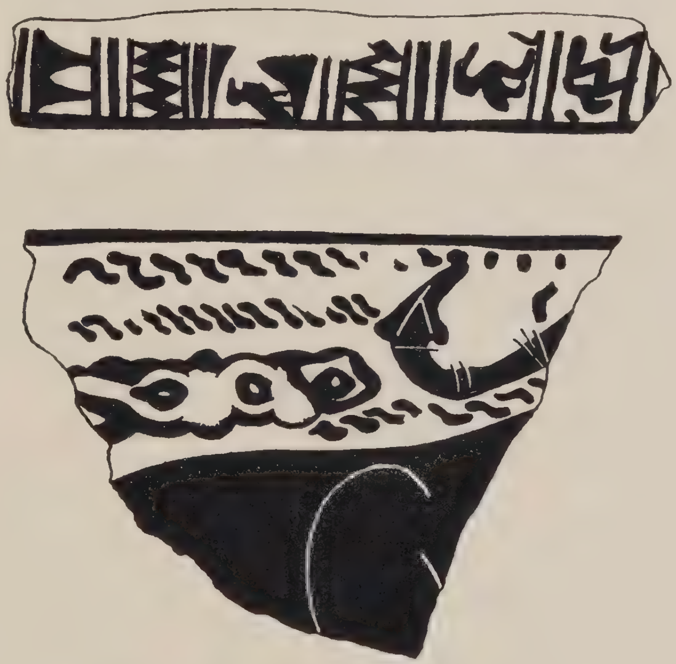


FIG. 4.—ACROPOLIS NO. 10 (FULL SIZE).

Athens, AGORA. Nos. 2 and 3 are from a votive deposit on the north west slope of the Areopagus and no. 1 a stray from the same deposit.[145] They are most plausibly to be associated with the Eleusinion to the east, though the ' awful goddess ' of no. 2 suggests the sanctuary of the Eumenides by the Areopagus,[146] while the nearby Metroon remains a possibility.[147] Nos. 4 and 5 are from seventh-century wells, the latter from below the Odeion; they could, judging from their proximity, belong to the Metroon, though the overall similarity of all these fragments suggests a common source, and their likeness to the Eleusis plaques particularly suggests the Eleusinion. All but no. 2 are white ground ticket plaques of the second quarter and middle of the seventh century.

1. T 673. *Hesp* Suppl. II 121, fig. 87, 122, B49. 6·4 cm. × 5·8 cm. White ground ticket plaque with central suspension hole at the top. A tripod.

2. T 175. *Hesp* II 604, no. 277, figs. 72, 73, XXIII 95 f. *BSA* XXXV 195, 217. Rumpf *MuZ* 29, pl. 8. 4. Polychrome plaque with red decoration on white ground. 12·5–13·3 cm. × 24·8 cm. Holes in upper corners. A facing worshipper or goddess[148] with raised hands and snakes on either side.[149] Her head is in relief.

---

[145] Hill, *The Ancient City of Athens* 30 f.

[146] *Ibid.* 93 and references.

[147] *Hesp* II 636 ff., III 447 n. 5, XXIII 105.

[148] Snake Goddess, Fury or even Athena, Cook, *Zeus* III 189.

[149] Snake borders to plaques: ELEUSIS no. 5 (below); Corinthian, Berlin F. 899, *AD* I pl. 7. 27, *cf.* F. 893, *AD* I pl. 8. 19. The snake motif emphasises the chthonic character of Eleusinian cult. Compare also the large clay plaque in Eleusis with a snake in high relief, *PAE* 1898, 90 f.

3. T 184, 412, 413. *Hesp* II 605 f., nos. 278–280, fig. 74. Three fragments; all were probably of white ground style and two may have figured snakes. Two have single corner suspension holes preserved.

4. T 1499. 7·6 cm. × 6–2 cm. Fragment of a ticket plaque with two upper corner holes. Vertical straight black lines and wavy red arranged alternately.

5. T 2319. Mentioned *Hesp* XVI 210. 6·0 cm. × 6·9 cm. Fragment of a ticket plaque preserving two incompletely pierced corner holes. A blob between two horizontal lines.

Attica, ELEUSIS. From the Demeter sanctuary. On the circumstances of finding, see *PAE* 1883, 61, 1884, 76, *AE* 1885, 177 ff., Noack, *Eleusis* 12 f., *AJA* XXXVII 279. The following is not a detailed catalogue but covers the main classes of plaques from the site. Early black figure examples of the late seventh century are omitted.

1. White ground ticket plaques figuring a tripod. Noack, *Eleusis* 12, fig. 4, Kourouniotes, *Eleusis* 118, fig. 64. Some have no suspension holes, the others are pierced with either one hole at the top, one in each top corner, or two close together at the top. Their width ranges from about 5·0 cm. to over 10·0 cm. and height from about 7·0 cm. to over 15·0 cm. On geometric and later representations of tripods see Benton, *BSA* XXXV 102 ff. Of the Eleusis types some seem rather to be low tripod stands, some have wheel handles (*cf.* Benton, *op. cit.* 105, 106, fig. 13b, pl. 26. 2), another has, apparently, a supporting column beneath the bowl. The representation of the tripod legs on Noack, *loc. cit.*, top left, suggests flat hammered bronze. The wavy lines on either side of the tripods may be a debased snake motif (*cf.* Agora no. 2), and the V-shaped device above the bowl suggests some unknown structural unit rather than the tripod in use.

2. White ground ticket plaques figuring a bird. Noack, *Eleusis* 13, fig. 5. The fowl is of the overfed subgeometric breed far removed from the sleek geometric (*JdI* XIV 191 f.).

3. White ground ticket plaques with coarse abstract decoration of vertical bars, vertical straight and wavy lines (*cf.* Agora, nos. 4, 5) or criss-cross net-work. Two have single upper suspension holes, and one is not pierced.

4. Fragments of larger white ground plaques with polychrome decoration. Two preserve a broad band of net-work as their border, and on one the decoration seems to have run in separate friezes, one with maeander, the other involving a scale pattern, but this is not at all clear.

5. The edge of a white ground plaque on which is part of an applied plastic snake [150] (*cf.* no. 1 and Agora, no. 2): in one of its bends a rosette.

Attica, SUNIUM. With debris from a small Athena temple destroyed by the Persians and levelled for the later temple of the same goddess.[151]

1. Athens NM 3588. Stais, *AE* 1917, 209, fig. 19, Cook, *BSA* XXXV 173, pl. 40 b, Kirk, *BSA* XLIV 119 f., Kraiker, *DLZ* 1952, 555, Rumpf, *MuZ* 29, pl. 4. 4, Zervos, *L'Art en Grèce*, fig. 48. The right-hand half of a plaque with a suspension hole in the upper corner, figuring a warship. The steersman and five marines bearing spears are preserved. Attributed to the Analatos Painter (Cook, *BSA* XXXV 173). About 700.

2. Athens, National Museum. *AE* 1917, 209, fig. 17, bottom left (here figured on its side, as Burr remarks *Hesp* II 606, n. 2). Within a chequerboard border the feet and dress of a woman to the right. Apparently not white ground. Compare for style and filling *BSA* XXXV, pl. 51 a, b. The chequerboard is not common on Attic in this period.[152] Second quarter of the seventh century.

3. Athens, National Museum. *AE* 1917, 209, fig. 19, top right. Archaic ticket plaque figuring a sphinx. Holes in upper corners. I have not seen this piece, and can say nothing of its date or style.

Other fragments were unrecognisable.

Attica, MENIDI. A hero cult associated with the Mycenaean beehive tomb and later burials. Found in the *dromos*, Wolters, *JdI* XIV 121, 127. Fragments of white ground plaques, some with pierced corners. Probably, then, the mid-seventh-century type on a powdery white ground; compare their reported state of preservation with that of other pottery from the site.[153] Most seem too large and thick to be ticket plaques.

AEGINA. City site near the temple of Apollo.

Above pp. 184–6, PLATE 16, 1, FIG. 1. Attic fragment. Warriors to the left (on ship?) and inscription]σονοσεπιστ[. About 720–710.

---

[150] Cf. *Corinth* XV 2, 157 and pl. 34, XXII 14. The snake of our fragment was probably only the border to a figured scene. Perhaps it is this fragment which is mentioned in *PAE* 1898, 91 in connection with the large relief plaque with a snake which I have not seen and whose antiquity I cannot determine from its description.

[151] Picard (*RA* XVI 5–28), discussing a hypothetical *heroon* of Menelaus' steersman Phrontis at Sunium, associates our no. 1 with it. But the plaque was found with debris of the Athena temple far from the suspected *heroon* and the beard of its steersman (it was a job for a more senior hand, cf. *BSA* XXXV, pl. 55 c) can have little to do with a bearded Phrontis on a painting in the Cnidian Lesche at Delphi over two hundred years later. See also Young, *Studies presented to D. M. Robinson* II 355 f.

[152] Cf. *CVA* Berlin I, pl. 56. 83, *BCH* LXIII, pl. 49. The motif as a plaque border recurs once over a century later on Akr 2560, pl. 107.

[153] Their discovery (Lolling, *Das Kuppelgrab bei Menidi* 5 f.) with a late sixth-century black figure foot (*JdI* XIV 109, figs. 11–13) does not afford a dating context for them.

DELOS. One fragment found east of the temple of Apollo.[154]

B 1401. *Délos* XVII 57, 69, pl. 68B Rh 68. *BCH* XXXV 414 f., 420. I cannot explain the circular depression on the back of this fragment: it is certainly not from a plate. The fabric can be 'Melian'. I have not handled the piece, but the published descriptions from 'argile rose, assez tendre' to 'argile rouge, assez dure' and the suspected slip do not go beyond the range of 'Melian' types. Two male figures move to the right, the foremost holds staff (spear?) and bow (?)[155] in one hand and short strands of some material in the other;[156] his companion may have carried a staff, but the composition is confused and the former figure may have been an afterthought of the painter, who could not cope adequately with overlapping compositions (otherwise avoided in 'Melian'). They approach another figure of whom are preserved only the hands, one holding strands similar to those held by the man before him: he may be seated. Dugas finally found in the painting more resemblance to E. Greek work (such as the Euphorbos plate) than to 'Melian', but the filling ornament is pure 'Melian' and the figure drawing plausibly so. He also identifies the scene reasonably as an act of offering, so it is probably votive, not decorative as he describes it, or funerary, as he also suggests. 620–600.

East Greece. SMYRNA. Temple site. Prof. Akurgal has kindly allowed me to mention pieces found in the joint excavations of the British School at Athens and Ankara University at Bayrakli in 1950.

A complete plaque figuring a griffon and added incised scenes on front and back. A pair of holes close together to one side only. Late seventh century.

Other fragments, slipped but without preserved decoration, were found.

Perhaps votive plaques are:

ARGOS. *Argive Heraeum* II 117, no. 12, pl. 58.[157] Fragments decorated in a typical Argive late geometric style with women (worshippers) holding branches, and concentric circle decoration. Published as a plaque, but more probably a box or model in view of the traces of the attachment of other members on the back. Around 700.

East Greece. LARISA. *Larisa am Hermos* III 90, pl. 38, 14. Floral pattern and plastic addition (?).

In this period no one site has produced a series of plaques to match the Corinthian plaques from the last half of the seventh century on, or the Attic sixth century plaques.

From the technical standpoint we may note that but for one or two ticket plaques[158] all were pierced simply for suspension in the upper corners or centre top. Designs are generally simple, and separate patterns in friezes or panels[159] are as rare as double plaques with decoration on both sides.[160] One fragment only is from a plaque which deviated from the rectangular norm in having a curved edge,[161] one had a raised upper edge[162] and one only is inscribed.[163] Where they have decorated borders these are simple net or zigzag patterns[164] or, uniquely, chequerboard.[165] A snake motif as border is found on plaques from sanctuaries in Athens and Eleusis.[166] None offers a style of painting or composition which cannot be easily paralleled on contemporary vase painting, but choice of decoration may often be more deliberate, and the technique of ACROPOLIS no. 9 is noteworthy. One was painted by a leading vase painter whose work is otherwise well known.[167] The ticket plaques of Eleusis and Athens[168] must have resembled closely the cheap wooden type decorated in a similar manner, and occur only from sanctuaries of Demeter. If some of the MENIDI fragments were of this type they again are from a sanctuary or hero shrine with chthonic connections. Depicting a tripod they seem to be a substitute for the richer offering in bronze. I do not think that animals for offering were figured in the same way: thus the birds on ELEUSIS no. 2 can be decorative only.[169] The abstract decoration of the ticket plaques ELEUSIS no. 3, AGORA nos. 4 and 5, is the work of someone who could do no better, and has no mystic significance. The white ground technique is applied to larger and more elaborate plaques of the same period, especially the polychrome snake goddess AGORA no. 2; and note ACROPOLIS no. 8 and MENIDI. Of the decorated geometric plaques ACROPOLIS nos. 1, 2 and SUNIUM no. 1 (the warship plaque) must be sailors' offerings,[170] and were more of the AEGINA inscription preserved it might prove to be another such. The horseman of ACROPOLIS no. 9 is reminiscent of an unpublished black figure plaque fragment from Eleusis figuring a suppliant youth on horseback carrying branches (a simple βάκχος), and may himself be a worshipper.

---

[154] Its exact position is not recorded. For *oikoi* and temples in the area where dedications would be expected in this period see Vallois, *L'Architecture Hellénique de Délos* 14 ff.

[155] We would expect the bowstring to be drawn also.

[156] *Cf.* Poulsen, *Der Orient* 107. Could the staff be the εἰρεσιώνη bound with woollen fillets (Deubner, *Attische Feste* 199)? Compare also the regalia of Chryses, priest of Apollo: στέμματ' ἔχων ἐν χερσὶν ἑκηβόλου Ἀπόλλωνος χρυσέῳ ἀνὰ σκήπτρῳ (Homer, *Iliad* I 13 f.), and the simple fillet in the hand of a votary before Athena, Beazley, *Development*, pl. 18.

[157] *Ibid.* no. 13, which has a round saw-like edge, is unusual and its shape must be significant—of what, I cannot suggest; but it cannot be considered with ordinary plaques. *Cf.* similar objects from the Heraeum and Tiryns, called votive wreaths by Blegen, *AJA* XLIII 423, and *Corinth* XV 2, 213 ff., pl. 47.

[158] ELEUSIS nos. 1, 3.

[159] ELEUSIS no. 4, *cf.* ACROPOLIS no. 2.

[160] ACROPOLIS nos. 1, 2, 3; AEGINA.

[161] ACROPOLIS no. 8. This may not be a plaque, but I cannot explain its shape in any other way.

[162] ACROPOLIS no. 8.

[163] AEGINA, and *cf.* the graffito in ACROPOLIS no. 8.

[164] ACROPOLIS nos. 3, 7, ?8; ELEUSIS no. 4.

[165] SUNIUM, no. 2.

[166] AGORA nos. 2, 3; ELEUSIS no. 5.

[167] SUNIUM no. 1, Analatos Painter.

[168] ELEUSIS nos. 1, 2, 3; AGORA nos. 1, 3, 4, 5.

The Corinthian and later Attic series permit a broad classification of scenes around two main foci, deity and worshipper. The lack of material and of any strong local tradition in the dedication of painted plaques in this earlier period makes this difficult, but some deliberate choice in decoration was exercised.

A number of other plaque fragments may be mentioned here,[171] though most are later than the period under discussion above. Like many funerary plaques, they are much thicker than the other votive plaques, and average 2·0–4·0 cm.; their clay is generally less fine, resembling that employed for coarse pottery like pithoi or tiles,[172] but their surfaces are smoothed and usually finished with an added layer of refined potters' clay, while backs and often edges, too, are left rough. I exclude all whose decoration is clearly funerary. They have been variously described as metopes and funerary or votive plaques.

1. Athens, Acropolis. N. Slope, Well M. A–P 1085. Broneer, *Hesp* VII 224 ff., fig. 58 and pl. 1; Kübler, *op. cit.*, pl. 81; Pfeiff, *Apollon* 28 ff., fig. 7; Kraiker, *DLZ* 1952, 555. Thickness 3·9–4·2 cm.; part of the upper edge seems preserved. Head of a bearded man to the right, and his raised hand receiving a lyre from another figure whose hands only are preserved. Early black figure style of about 610 by the Nessos Painter (Beazley, *Hesp* XIII 39, no. 8). Double line incision is employed for some contours. More probably Chiron teaching Achilles[173] than Apollo receiving the lyre from Hermes.[174] Reminiscent of the scene on a Naxian fragment on Delos[175] (*AM* LVII, pl. 5. 5).

2. The same provenance as no. 1. A–P 1113. Broneer, *op. cit.* 228, fig. 59. Thickness 2·8 cm. Fragment. 'A curving portion of some figure is preserved, possibly from the wing of a sphinx, . . . the background was painted white.'

3. New York. Metropolitan Museum 35.11.15. Richter, *AJA* XL 304, fig. 3, *BullMetrMus* 1936, 116 ff., 1942, 83 f. Thickness 2·7–2·8 cm. The plaque had a plain border. It is painted 'on a yellowish gray slip',[176] and at the back is trimmed along its edges. The forepart of a lion is preserved: assuming the lion to be seated, the complete plaque may have measured about 40·0 cm. (high) × 45·0 cm. The small eye and ear, type of mane and forelock stylised in a manner not easy to parallel on vase painting, suggest work contemporary with the earlier style of the Gorgon Painter, about 600. 'From Attica.'

4. Athens NM 17468. Provenance unknown. Height 17·3 cm, width 13·4 cm., thickness 1·9 cm. PLATE 16, 6. Original height probably about 35·0 cm. The edges are unpainted and only roughly finished. Pale Attic clay. Part of two draped figures to the left: below, an animal frieze, of which is preserved two facing boars. Red on boars' rump, ribs, belly, shoulder, and tusks, and on triangles of dress hem, wavy band above, and upper fold of dress. The drapery and proportions of the animals suggest a date in the first quarter of the sixth century, and probably not early in it.

5. Agora P 14688. Greatest length 10·5 cm., thickness 3·5–3·8 cm. PLATE 16, 5. Part of drapery with red over the glaze and double line incision as on no. 1.

---

[169] Birds are seldom offered, though they again are found replacing richer animal offerings, *cf.* Paus. X 32, 16.

[170] Kirk regards such ship scenes as heroic decoration only, *BSA* XLIV 152. Geometric ships appear on Acropolis vases Akr 259, 260, 276, 277, 299, 300, *cf.*, later, 412, pl. 14.

[171] The original publications of nos. 1–3 and 8 give detailed descriptions. I record here only significant measurements suggesting scale.

[172] Some show in the break what looks like the impression of chopped straw mixed in the clay.

[173] Chiron is not an unfamiliar figure in archaic art (Johansen, 'Achill bei Chiron' in Δράγμα 181–205, *cf.* Picard, *REA* LIII 1–25).

[174] Cf. *Hom. Hymn* IV 475 ff.; but there Hermes is still a baby in stature, *ibid.* 254, as on the Caeretan vase *JHS* XLVIII, pl. 13.

[175] *BSA* XLVII 24, n. 138. (The reference to *ABL* should be struck out.) That the figures are not of sirens was proved by Kunze (*AM* LVII 133 f., apparently not accepted by Pollard, *CR* LXVI 63, n. 1). The position of the hands of the figure on the right might suggest *krotala*, but could indicate a music lesson on the lyre with finger exercises.

[176] For the use of slip on nos. 2 and 3 here, *cf.* the earlier Attic vases from Vari, *BCH* LXIII 287.

6. Agora P 1125 *bis*. Height 11·0 cm., thickness 2·5–2·8 cm. PLATE 16, 3. A plain edge and border. Within a glaze line the upper extremity of three letters (? ιεα) of an inscription in red paint.

7. Agora P 8955. Width 14·5 cm., thickness 3·0 cm. PLATE 16, 4. Most of the surface is covered with a metallic glaze whose edge is defined by an incised line, doubled at one point (as on nos. 1 and 5), and three parallel glazed lines beyond it. There is a line in white over the glaze at the left edge. Too little is preserved to suggest the subject.

8. Athens. Akr 1037, pl. 80 (incomplete illustration, as the plaque has a high, undecorated, upper border, cf. *AE* 1887, 115 ff., pl. 6, Casson, *Catalogue of the Acropolis Museum* II 306 ff., Smith, *New Aspects of the Menon Painter* 54 f.) 52·0 cm. × 65·5 cm., thickness 8·0 cm. The upper edge is decorated with a cable pattern. A warrior runs to the left. Inscription, *Megakles kalos*, the name having later been erased and *Glaukytes* substituted, no doubt after Megakles' ostracism in 486.[177] Related to Euthymides (Beazley, *ARV* 934; Rumpf, *MuZ* 65). A little before 500.

Nos. 1, 2, and 8 have a known provenance, the Acropolis, and may be considered first. The *Megakles kalos* plaque, no. 8, despite its plain upper border, was meant to be seen in its full height, as the decoration on the upper edge proves.[178] Benndorf thought it might have been set in a balustrade,[179] and Pfuhl that it might have stood between posts or columns.[180] The fact that the inscription was erased and the whole plaque not removed when the name on it gave offence suggests that it was at least in a semi-permanent position. The Nessos Painter plaque, no. 1, may have been similarly placed, but it had no upper border, and its upper edge is rough. The decoration of these plaques is not distinctly votive, but the quality of the painting proves that their value was also decorative, and they were probably dedicated as semi-permanent decoration in some Acropolis building. *Kalos* (and *kale*) inscriptions occur on other Acropolis dedications.[181] The lion plaque, no. 3, has been declared funerary by Miss Richter.[182] The subject is as much at home on a votive as on a funerary monument.[183] The plain border might suggest a setting as a metope, but even so, no funerary plaque is finished in this manner.[184] The figures on nos. 4 and 5 might have formed part of a funerary procession, but the appearance of an animal frieze on no. 4 is unexpected. No. 6 from the Agora has a plain border, as nos. 3 and 8, and bore an inscription. I would regard all these as decorative by design, and at least those from the Acropolis as dedications also. None is proved funerary, and though some could have formed part of a metope frieze, they would not have been placed on the exterior of a building of any size.[185]

JOHN BOARDMAN

---

[177] Robinson and Fluck, *Greek Love Names* 143 ff.

[178] Otherwise its exceptional thickness might suggest a metope.

[179] *AE* 1887, 124.

[180] *MuZ* I 493.

[181] On plaques, above n. 123.

[182] *BullMetrMus* 1942, 83 f.

[183] Funerary, *cf.* the 'mourning women' stand in the Kerameikos, above n. 140; but also a votive plaque in Eleusis (Payne, *NC* 344, Cook, *BSA* XXXV 200, 217, *JHS* LIX 151) and the Corinthian altar *Hesp* XVI, pl. 51.

[184] A plain upper border only is found on funerary plaque series (as the Exekias plaques, Technau, *Exekias*, pll. 14–19) which may have been set below the projecting rim of a rectangular grave (Kübler, *Mitteilungen* II (1949), 11, *cf.* pll. 2, 3). This positioning may have suggested the projecting upper edge of other *prothesis* plaques; some of these have no holes, others are pierced for suspension rather than nailing.

[185] The thickness of the Kalydon and Thermon metopes ranges from 5·5 to 7·0 cm.

A ROOF AT DELPHI

(PLATES 17–18)

BECAUSE of its dating on the borderline of archaic and classical, and its excellent state of preservation, the Treasury of the Athenians at Delphi has for long been a monument of great interest to scholars working in many fields of ancient art and architecture. It is my belief that it offers valuable and surprising evidence in the perplexing problem of how the ancients roofed their buildings; and to set forth the grounds for that belief is the aim of this paper.[1]

The roof over the *pronaos* was substantially different from the roof over the cella. Among other things, the *pronaos* had a stone instead of a wooden ceiling, which was, moreover, at a higher level. We are here concerned with the roof over the cella, for which alone there seems to be reliable evidence (mostly on the inside face of the west pediment). The French publication, otherwise extremely full, says little more than that the rather slender ridge beam and purlins were supported by props from the five massive crossbeams spanning the building, and that these carried a ceiling of boards fixed to their underside (*FdD* II 48). An examination of the stonework seems to suggest different conclusions.

A first impression of the inside face of the west pediment (which forms the rear wall of the cella) is probably one of surprise at its extreme irregularity (PLATE 17*a*). This is because many of the blocks are modern poros replacements. The complete plan of the ancient stonework can, however, be restored with tolerable certainty.

On a raised fillet along the top of the inner face of the walls ran a band of painted decoration. Above this the stone was cut back to provide a continuous ledge along which ran a wooden member apparently forming the *epikranitis* moulding. Its shape is conjectural. Slightly above it came the five heavy crossbeams; the side cornice blocks were recessed to take the end of each beam, as shown in PLATE 17*b*. The shape of the cornice blocks between the beams, it will be seen, is very irregular. A noteworthy peculiarity is shown in FIG. 1, and can also be observed on the farthest block in PLATE 17*b*: whenever the block projects far enough inwards towards the cella to cross the plane marked A (FIG. 1), the lower part of it is cut back to the level of that plane, as shown. This is plainly done to accommodate the *epikranitis* moulding, which is thus shown to have been about 15 cm. high (*cf.* the French restoration, FIG. 3).

A difficulty now arises. A glance at FIG. 1 shows that the wooden member thus restored is far too thick to pass under the crossbeams; where they met, one of the two must have been notched to let the other through. This suggests a member of two parts: a lower part (marked *a*) forming the *epikranitis* moulding and passing freely under the crossbeams, and an upper part (*b*) added in the spaces between them. Why was this upper part there? If the ceiling was on top of the crossbeams, which was the usual arrangement, then it follows that the stonework between them would be visible from the cella below unless masked by something in front of it; and plainly it was not visible, for it is worked very roughly indeed. Therefore the stonework

---

[1] My acknowledgements are especially due to Dr. W. H. Plommer and Mr. R. M. Cook, of Cambridge, for much help and advice in the preparation of this article, and to Mr. G. P. Stevens and Mr. B. H. Hill, of the American School at Athens. I must thank M. Daux, Director of the French School, for permission to reproduce FIG. 2; and I am deeply grateful to M. Gallet de Santerre for facilitating my work at Delphi, and to M. Y. Fomine for acute criticism tempered with heartening encouragement. To Mr. J. B. Ward Perkins, Director of the British School at Rome, and to Prof. D. S. Robertson, I am indebted for valuable comment and advice on my drawings; they are based on those of P. E. Hoff, published in *Fouilles de Delphes* II.

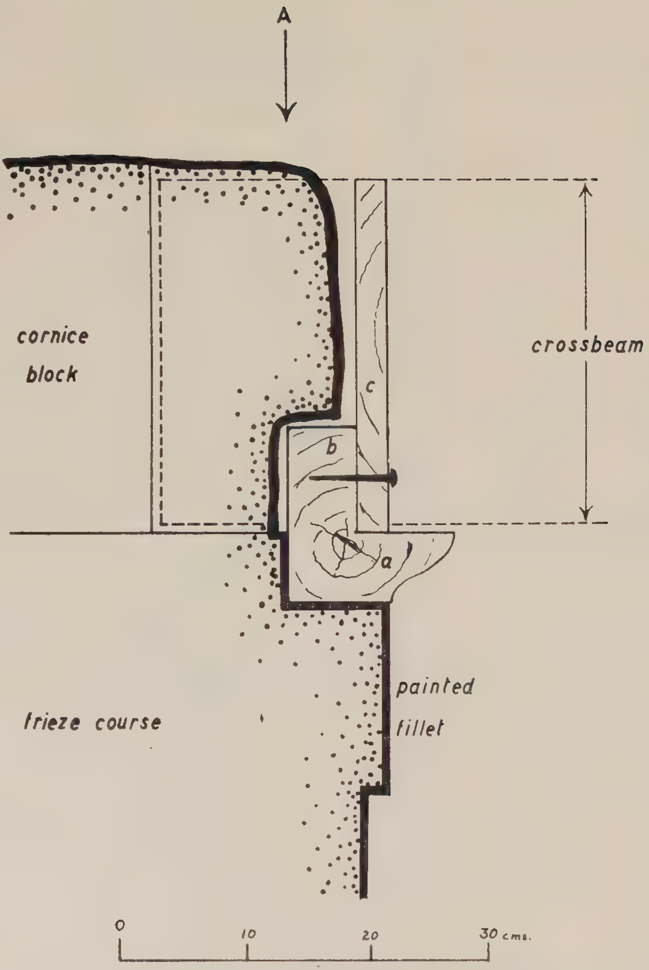

A
cornice block
crossbeam
c
b
a
trieze course
painted fillet
0
10
20
30 cms.

FIG. 1.—SECTION THROUGH *Epikranitis* MOULDING AND MASK BOARDS.

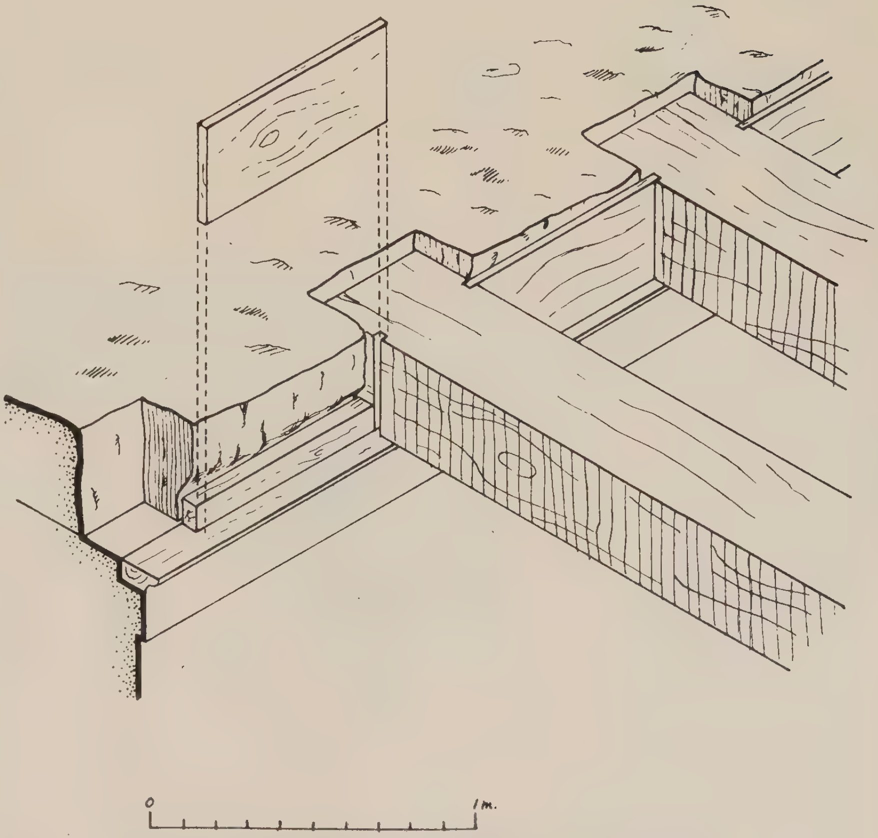


FIG. 2.—GENERAL ARRANGEMENT OF CROSSBEAMS AND MASK BOARDS.

was masked, and I have accordingly restored a series of mask boards (*c*), slid down vertically into the spaces between the crossbeams. This explains the presence of part *b* of the member: it provided a wooden backing to which the mask boards could be nailed. The entire system is shown in FIG. 2, and also, from below, in FIG. 8; it bears a notable resemblance to extant ceilings in stone.

The *epikranitis* moulding ran all round the cella. Above it in the pediment came the horizontal cornice course, marked A in FIG. 7*b*, its height equal to that of the crossbeams (*cf.* also FIG. 4). These were massive timbers and very closely spaced. They had to be, for they bore the whole weight of the roof. The next course in the pediment, marked B, is the crucial point of the whole restoration.

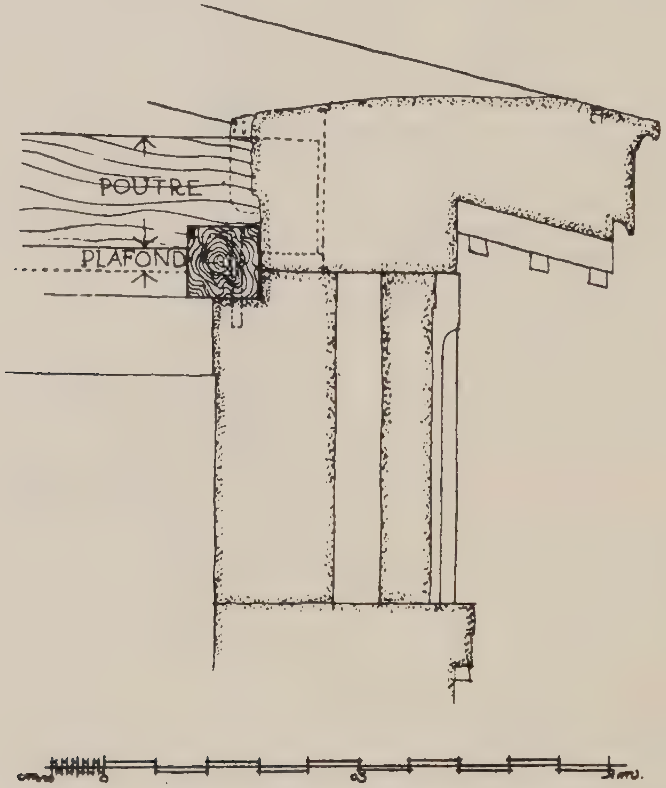


FIG. 3.—PROBABLE ARRANGEMENT OF THE CEILING OF THE CELLA.
(Reproduced, with the permission of the French School at Athens, from *FdD* II 47, fig. 15.)

As can be seen from FIG. 7*a*, there are three ancient blocks preserved in this course. Two of them have sockets for the ends of the purlins, marked *pr*, and all three have been cut back to the plane of the course below for a distance of some two-thirds of their total height. The topmost third, left untouched, thus overhangs the rest of the block like a continuous ledge. As this ledge exists on every ancient block preserved in the course, it must clearly be restored across the entire width of the building; it must also be explained.

The explanation, fortunately, is fairly easy. The top of course A was on a level with the top of the crossbeams, and a glance at FIG. 4 will show that this ledge must surely have had

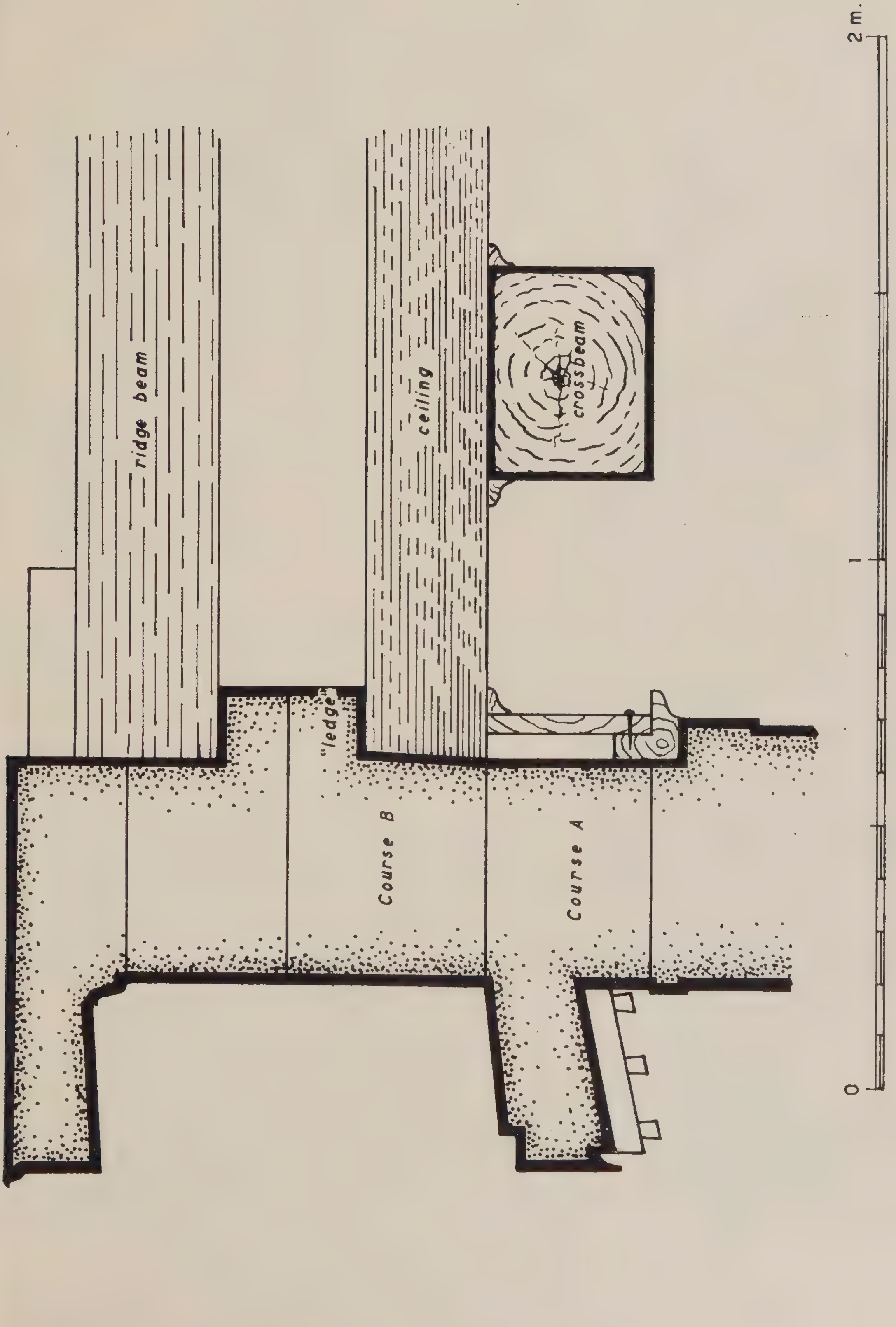

ridge beam
ceiling
crossbeam
"ledge"
Course B
Course A
2 m.
1
0

FIG. 4.—WEST PEDIMENT. SECTION THROUGH RIDGE.

fitted in under it something that rested on top of the crossbeams; in other words the ceiling was up in its normal place instead of being nailed on underneath them.

It is not certain what kind of ceiling was used. The depth of space available suggests coffers. As we shall see, however, there were apparently two heavy longitudinal beams running down the cella. Their blank under-surfaces would interrupt the rows of coffers crossing the building and divide them into three bays, an unusual arrangement. Moreover, as FIG. 5 shows, the coffers could not extend right to the side walls, for the ceiling there must have diminished in thickness to leave room for the rafters. Accordingly, I have restored a ceiling of plain planks laid across the crossbeams; it should not have looked too unsightly, especially if the wood were adorned with carved or painted decoration.

This is the simplest solution but by no means the only one possible. An alternative is that these planks were laid with narrow gaps left open between them, which were then covered by boarding laid on top. There is good evidence that ceilings of this sort did in fact exist. Cuttings for ceiling planks spaced slightly apart can be traced on both pediments of the " Temple of Ceres " at Paestum; cuttings of the same kind found on tympanum blocks from the west pediment of the temple of Aphaia are published in Furtwängler, *Aegina*, pl. XLVI; similar cuttings appear in the South West Wing of the Propylaia at Athens, as recorded by Dörpfeld in *AM* X, pl. V, and in the *pronaos* of the Pinakotheke. They occur again in the Sicyonian Treasury at Olympia, though here the planks ran laterally across the building instead of parallel to its axis. In all these buildings the space between the planks was much too narrow for coffers.

Again, another alternative solution is some sort of coffered ceiling, for though I have not so restored it, it is certainly possible.

Whatever the type of ceiling, a problem perhaps best understood on comparison of FIG. 5 and FIG. 7*b* arises at the two angles of the pediment. The ceiling fitted under the overhang or " ledge " of course B. What happened where this ledge meets the raking cornice blocks, which overhang even further? There are two possible answers, illustrated in FIG. 5. The ceiling may have continued to slope down immediately, fitting under the raking cornice as it fitted under course B, along the dotted line marked *y*. This would mean the ceiling tapering off into a thin wedge of improbable appearance (I have drawn the left-hand side of my ceiling in FIG. 8 on this plan). Alternatively, and much more probably, the ceiling could disregard the raking cornice and retain its full thickness until forced down by the underside of the rafters, along the line marked *x*. The ends of the ceiling planks could easily be cut to fit round the cornice blocks by a man with an axe stationed to deal with each plank as it was laid. True, the angle block of the raking cornice, marked D on FIG. 7*b*, is cut back beyond the normal line of overhang. It is not, however, cut back far enough to be in the same plane as the lower part of course B, which is what we would expect if it had been cut to let the ceiling through, and some other explanation for it must be found. This will be discussed later. To sum up, the position of the ceiling seems to be clear enough but the details remain uncertain.

Our study now runs into serious difficulties. The middle block of the three preserved in course B (I have marked it C in FIG. 7*b*) is highly peculiar, for on it the overhanging ledge and therefore the ceiling itself is interrupted by a large square depression or recess. I have pondered over this recess for some time, and can only explain it as a dressing cut to receive the end of a large and heavy beam running longitudinally down the cella and presumably supported on top of the crossbeams. The idea of such a great beam in this position is very surprising, but I cannot escape the conclusion that it was there. It is a conclusion difficult to confirm. The blocks corresponding laterally and longitudinally are modern, and only the block diagonally

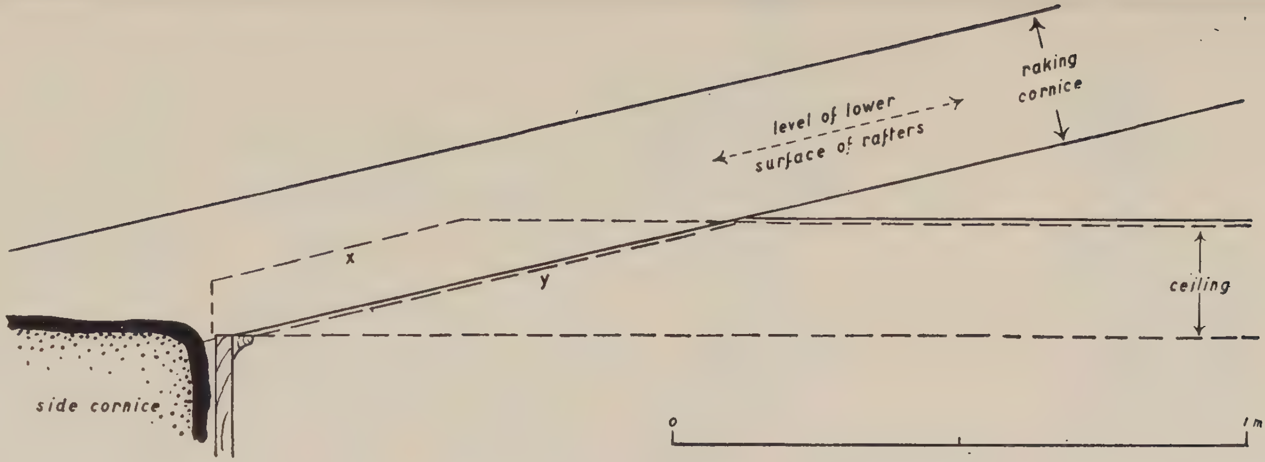

raking cornice
level of lower surface of rafters
x
y
ceiling
side cornice
0
1 m

Fig. 5.—Alternative Systems for Ceiling at Angles of Pediment.

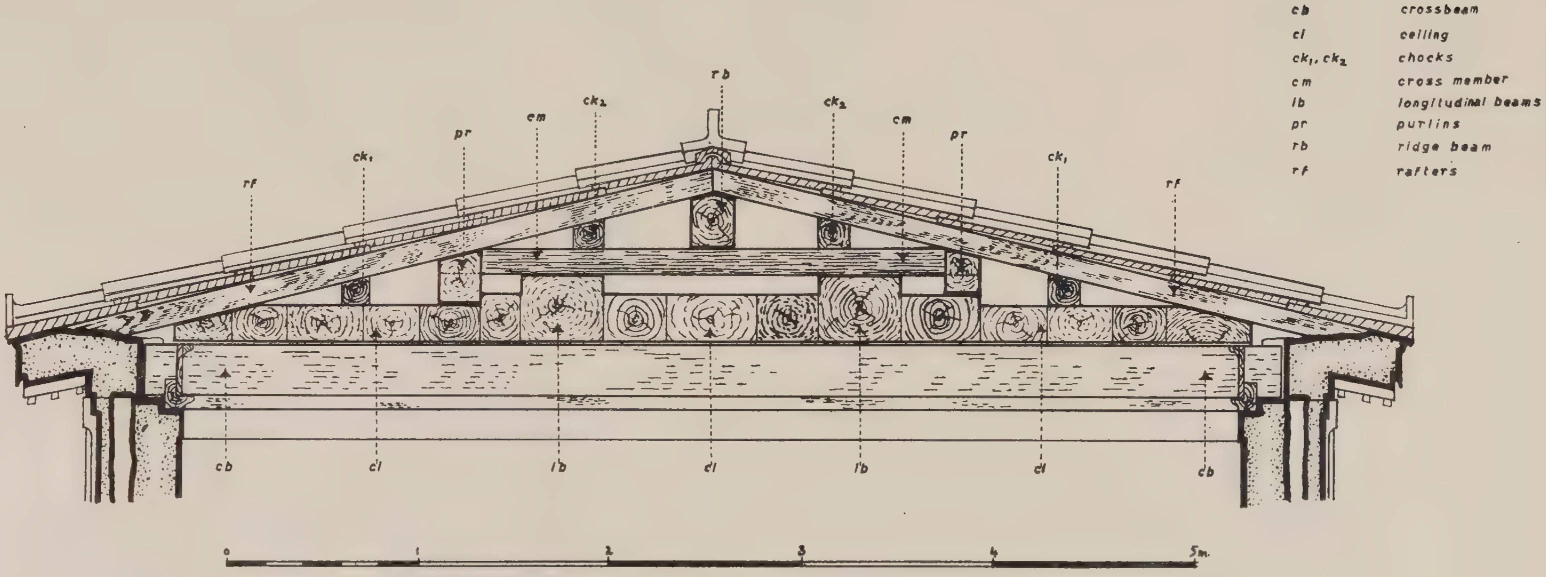
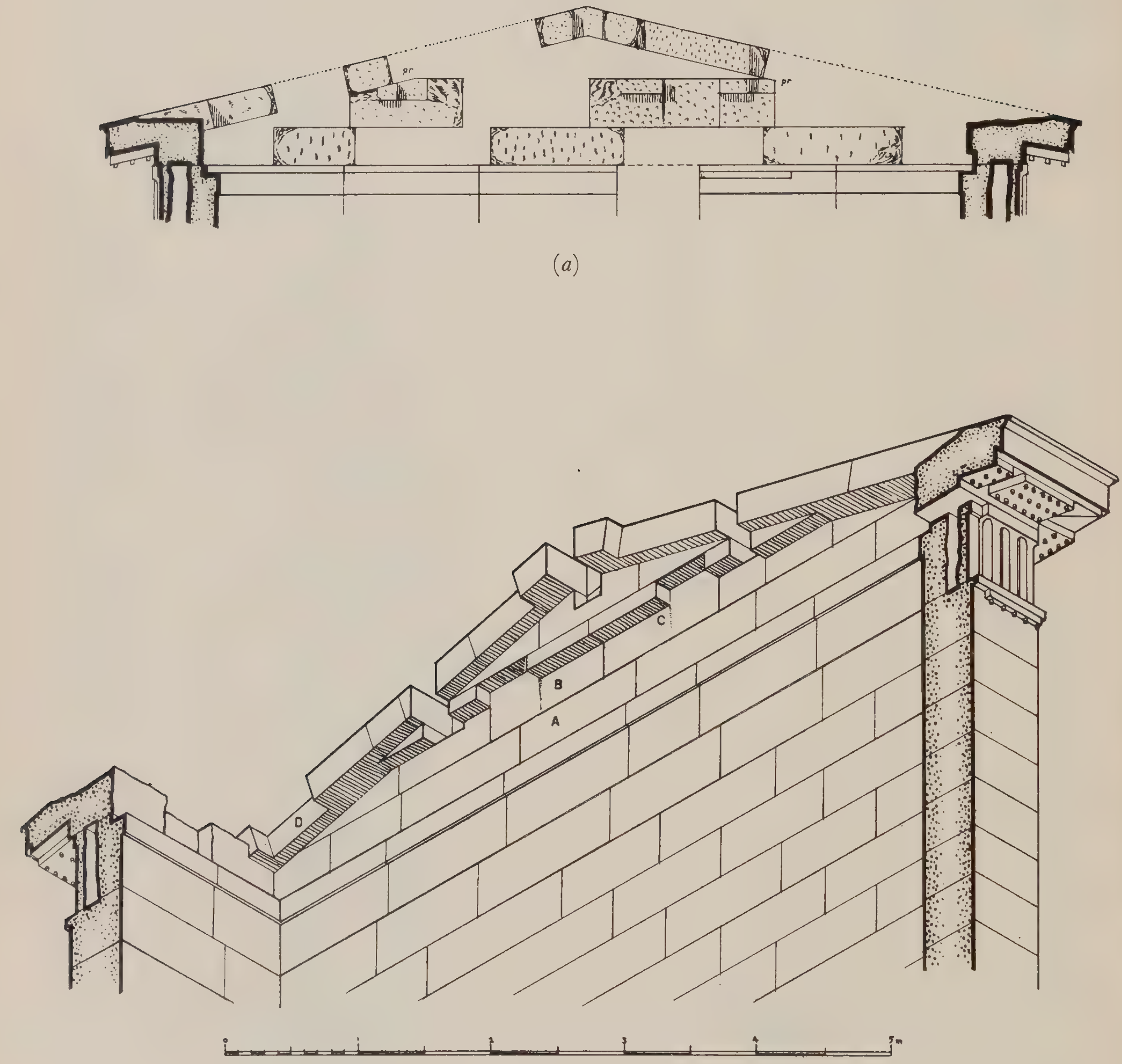

cb crossbeam
cl ceiling
ck₁, ck₂ chocks
cm cross member
lb longitudinal beams
pr purlins
rb ridge beam
rf rafters
rb
ck₂
cm
pr
ck₁
rf
cb
cl
lb
0
1
2
3
4
5m.

Fig. 6.—Section through Roof over Cella.


pr
pr
C
B
A
D
0
1
2
3
4
5 m

(a)

(b)

Fig. 7.—(a) Existing Ancient Blocks. (b) Restoration of Stonework.

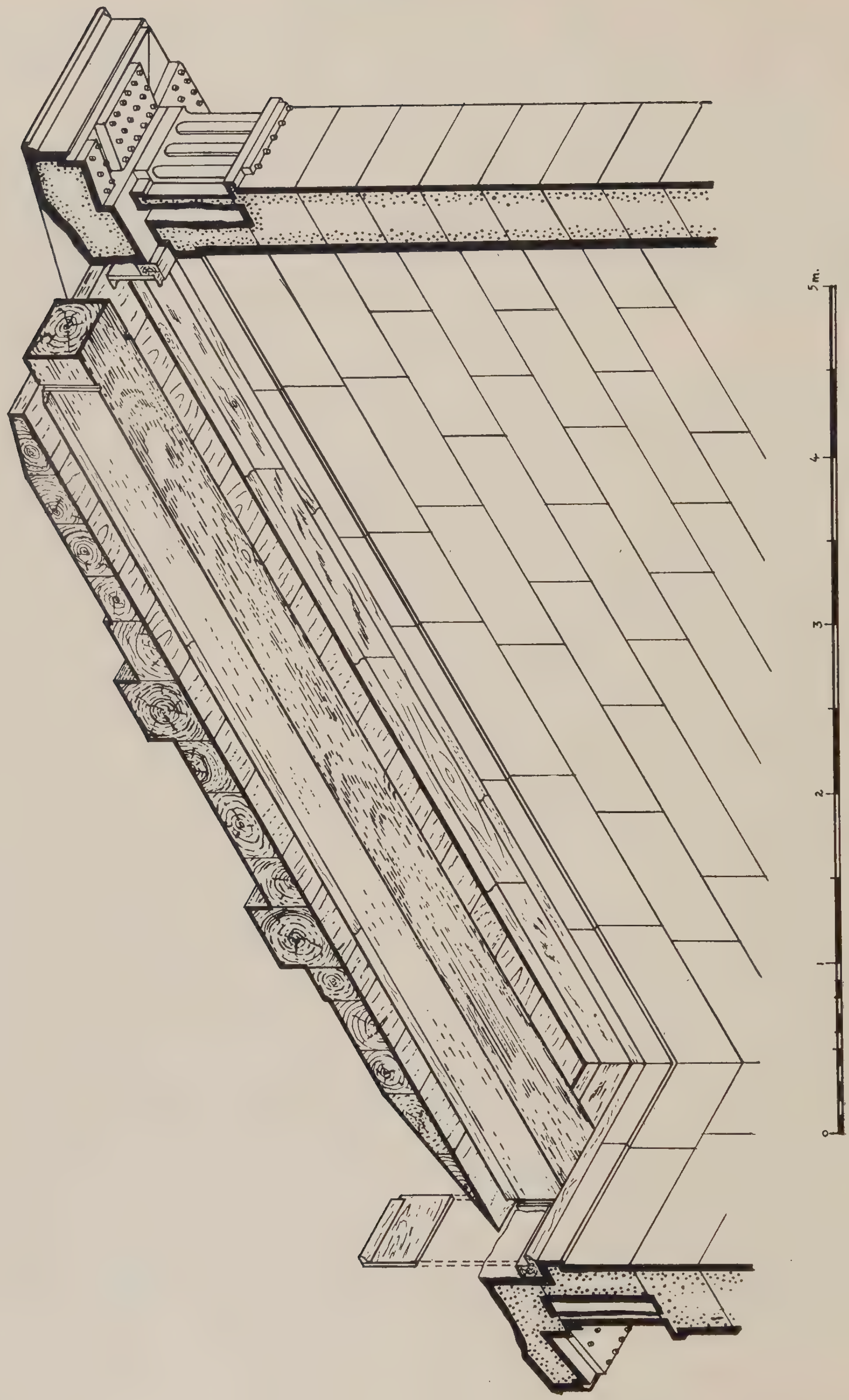
opposite is ancient; this, however, preserves a dressing, only just discernible, but of roughly the same dimensions and in exactly the same place. It is perhaps surprising that this heavy beam has no support where it abuts on the pediment, but this was unnecessary, for it was in effect a cantilever supported on the five crossbeams.

I cannot see how these conclusions are to be escaped if we are to accept the evidence of block C, nor can it be argued that possibly the block was wrongly placed during the reconstruction of the building. Apart from the evidence of the block diagonally opposite, there is the overhanging ledge, which corresponds with that on the adjacent block to the right; and this block is certainly in its correct position, because it carries the socket for the purlin. Block C is thus fixed as belonging to this course, and its only other possible position in this course is the next one to the left, as FIG. 7*a* shows; if we move the block to this new position we must move the beam with it, and the whole roof structure becomes even more complicated than it is at present.

The placing of block C thus seems to be established, and with it the longitudinal beam. And if we accept the existence of the beam we must assume that it was balanced by a similar member running down the other side of the building. The situation at present therefore stands thus (FIG. 6): five crossbeams (*cb*), the presence of which is attested by the sockets in the side cornices, support a ceiling (*cl*) attested by the overhang on course B. Sockets cut in the pediment give us two purlins (*pr*), apparently supported by the crossbeams through the ceiling, and a ridge beam (*rb*). The dressing on block C also gives us two heavy longitudinal beams (*lb*).

What was the purpose of these two beams? Clearly they are members of major structural importance and must have been supporting something. My belief is that they must have been connected with the only part of the roof badly needing support and as yet not provided with it—the ridge beam. This, as Audiat remarks in *FdD* II 48, was very slender and had to be propped up. I can conceive of no possible purpose for the two longitudinal beams, except to support the ridge beam by a cross member in the same way as the ridge beam was supported from the internal colonnade in the Arsenal of Philo. This cross member (*cm*), as I have restored it, seems somewhat thin; its thickness is fixed, however, by the upper surface of the longitudinal beams and the lower surface of the ridge beam, between which it must pass. These are in turn fixed by the stonecutting, for though the lower half of the ridge-beam socket is not preserved in the west pediment, it is preserved in the east. I have also carried this cross member through on top of the longitudinal beams to be rabbeted on either side into the purlins. I can claim no definite evidence for this idea, but it seems to me the most probable arrangement, for it gives a form of construction very similar to that of the Arsenal of Philo, the only other building in which we have reliable information on the structure of this part of the roof; the Arsenal, too, had a cross member running from purlin to purlin and supporting the ridge beam. As in the Arsenal, this member might almost be described as a tie or collar in embryo. It was not one in function, for it was not under tension as a true collar always is, and I doubt whether it was inspired by any engineering principles more profound than a conviction that the more the various members of the roof were tied together, the stronger was the whole likely to be. At the same time, if the Greeks ever did discover the principle of the tie or truss, the discovery may well have followed someone stumbling on it almost by chance in some structure like this.

The cuttings for the purlins show that the southern one was both thicker and deeper than the northern. In all probability this has no structural significance, and only means that the care and precision with which the exterior of the building was worked were not wasted on the parts above ceiling level, which no one ever saw, and where a few millimetres more or less would generally make little difference. Indeed, I have no doubt that all these timbers were



Fig, 8,—Restoration of Ceiling.

much more roughly hewn than I have shown in my drawings, for once a sound structure was achieved further refinement would be pointless. The purlins and ridge beam plainly were not so high as the existing cuttings for them, for these come right up to the upper surface of the raking cornice blocks, on which the tiles were laid, and some space must be assumed between the purlins and the tiles to allow for the rafters (*rf*), which rested on the first and supported the second. The cuttings were presumably carried up to the top of the cornice blocks to allow the roofing timbers to be dropped into place after the stonework had been completed.

The rafters I have restored as being much broader than they were deep, in accordance with what seems to have been common Greek practice. How the rafters were stopped when they reached the side cornice is not quite so clear. Presumably they simply rested on top of the cornice blocks, though the stonework here sometimes presents a very rough and irregular surface. The cutting back of the block D might suggest yet another heavy beam running down the cella close in to the side wall, against which the rafters could be stopped. This would create more difficulties than it would solve, for it would leave a gap between the beam and the cornice blocks to be bridged by the eaves tile, a very odd arrangement, which would also result in the eaves tile being much longer than the others. If, however, no such beam existed, then why was the block cut back? As we have seen, it was probably not done to accommodate the ceiling. The only answer remaining is that it was not meant to be cut back at all; it was meant to be in line with the other cornice blocks, but the line was not rigidly adhered to. The great variation in the inner faces of the side cornice blocks (PLATE 17*b*) lends colour to this idea.

It now becomes possible to calculate the size of the standard pantile used. The distance from eaves to ridge is about 3·72 metres; the dowel holes surviving along the side cornices tell us that the tiles were each 57·3 cm. broad. This seems to indicate that there were six rows of tiles from eaves to ridge, for that gives a tile length of 68 cm., allowing for a 6-cm. overlap between rows; any other number results in the tiles being either too long or too short in proportion to their known width, but a pantile of 68 by 57 cm. is just right, and compares admirably with the tiles of the temple of Aphaia, which measured about 68 by 58 cm. It is also on the analogy of the temple of Aphaia that I have restored antefixes, as suggested by Audiat, rather than a flank *sima*. Moreover, if we now restore two chocks (ck_1 and ck_2) under each rafter we shall have it directly supported under every tile joint; under the first joint, counting from the eaves, it is supported by the cornice block, and under the second by the sloping edge of the ceiling; the third joint is supported on a chock, while the fourth falls immediately over the purlin, itself resting on the ceiling; the fifth lies on a chock on top of the longitudinal beam, and with the sixth we reach the ridge. As it is only at these joints that the rafters and tiles are in contact, the entire weight of the roof is thus transmitted directly down to the crossbeams.

The dowels were set in the edges of the tiles; actually, the tiles along the southern side were dowelled by their western edges and those on the north by their eastern edges, or, to put it another way, the eaves tiles were always dowelled by the right-hand side, looking from the ridge. The position of the dowel thus fixes the position of the joint between two vertical rows of tiles. This in turn fixes the position of the rafter, if we are to believe that, as was usual, the rafters were centred under the tile joints, where, because of the heavy cover tiles, support was always most needed.

It is now possible to calculate the width of the rafters. The block forming the apex of the raking cornice projects into the cella well beyond its neighbours, presumably either to support the acroterion base, if it was a large one extending some distance back, or to counterbalance it if it was a small one perched out on the overhanging part of the cornice. The dowel marks show that a tile joint was aligned on the inner face of this apex block. The rafter under the joint therefore had its centreline also aligned on it; the edge of the rafter presumably lay alongside the other blocks of the raking cornice, some of which look as if they were dressed to have wood in contact with them (*v.* PLATE 18, FIG. 9). Thus the 16 cm. that the apex block projects beyond the others is the distance from the centre of the rafter to its edge; the rafter was therefore 32 cm. wide, and the other rafters were presumably more or less the same size.

This, then, I believe to have been the system of roofing employed in the Treasury of the Athenians at Delphi. It was a peculiar system, without any close parallel in the classical world. It does, however, bear some resemblance to a system represented in relief in the *Tomba dei Leoni Dipinti* in the Etruscan necropolis of Cerveteri and published by Åkerström in *ActArch* III (1934), 27. It also resembles that found in the Arsenal of Philo if I have rightly guessed why it was used.

It is my tentative opinion that the reason for this curious construction may be that the building was designed by someone who had previously built, or at any rate was familiar with, a much larger temple, and that, faced with the problem of building a small one, he tried to roof it as if it were a large one, scaling all the members down. This would account for the great number of fairly small timbers and would also provide a *raison d'être* for those perplexing longitudinal beams. A large temple had to have an internal colonnade, and the large temple was his model. In the small building there was no room for the colonnade, and it had to be omitted. He could not, however, omit the two architraves of the colonnade, for they were an integral part of his roofing system, so he had to lay them on the crossbeams; it was the only way of holding them up.

If this hypothesis is accepted, the woodwork becomes a sane and logical structure, though not necessarily a desirable one, instead of the crazy jumble it appears at first. The two longitudinal beams represent the architraves of an internal colonnade. They support the ridge beam by means of the usual cross members. The purlins are continuously supported on the crossbeams, just as they generally are on the side walls of the cella. Indeed, except for the fact that the purlins and the internal architraves are separate members, while it was a peculiarity of the Arsenal that one beam did the work of both, the construction at Delphi seems to tally quite well with that prescribed in the specification for the Arsenal.

It is generally inadvisable to build guesswork on top of conjecture, but, assuming the above theory is correct, it is interesting to speculate on the identity of the large temple involved. Similarities to the temple of Aphaia have already been noted, but to find a large temple we do not have to go to Aegina: the Temple of Apollo was only a hundred yards away. It is significant that the second stone temple of Apollo at Delphi was finished only in the last decade of the sixth century. The dating of the Treasury is disputed, but if the date of *c.* 490 is accepted, then many of the men working on the Treasury must have seen the big temple under construction fifteen years before. If the date of *c.* 510 is right it means that the two buildings were going up at the same time on the same site and both under Athenian supervision (it is well known that the contract for the Temple of Apollo was secured by the Alcmaeonidae); they may well have had the same architect. This would establish a link between them, and one might expect the Treasury to be influenced by the design of its larger and slightly older neighbour. None of this, however, can be proved, and it remains merely a matter of opinion.

Another quite possible explanation of the roof structure has been suggested to me by Mr. R. M. Cook. Everything seems to show that the greatest care and expense were lavished on the decoration of these treasuries—the Siphnian is an excellent example—and it is reasonable to suppose that if marble tiles were known they would almost certainly be used—and undoubtedly they were known. At the same time they would be at that period something of a novelty, and

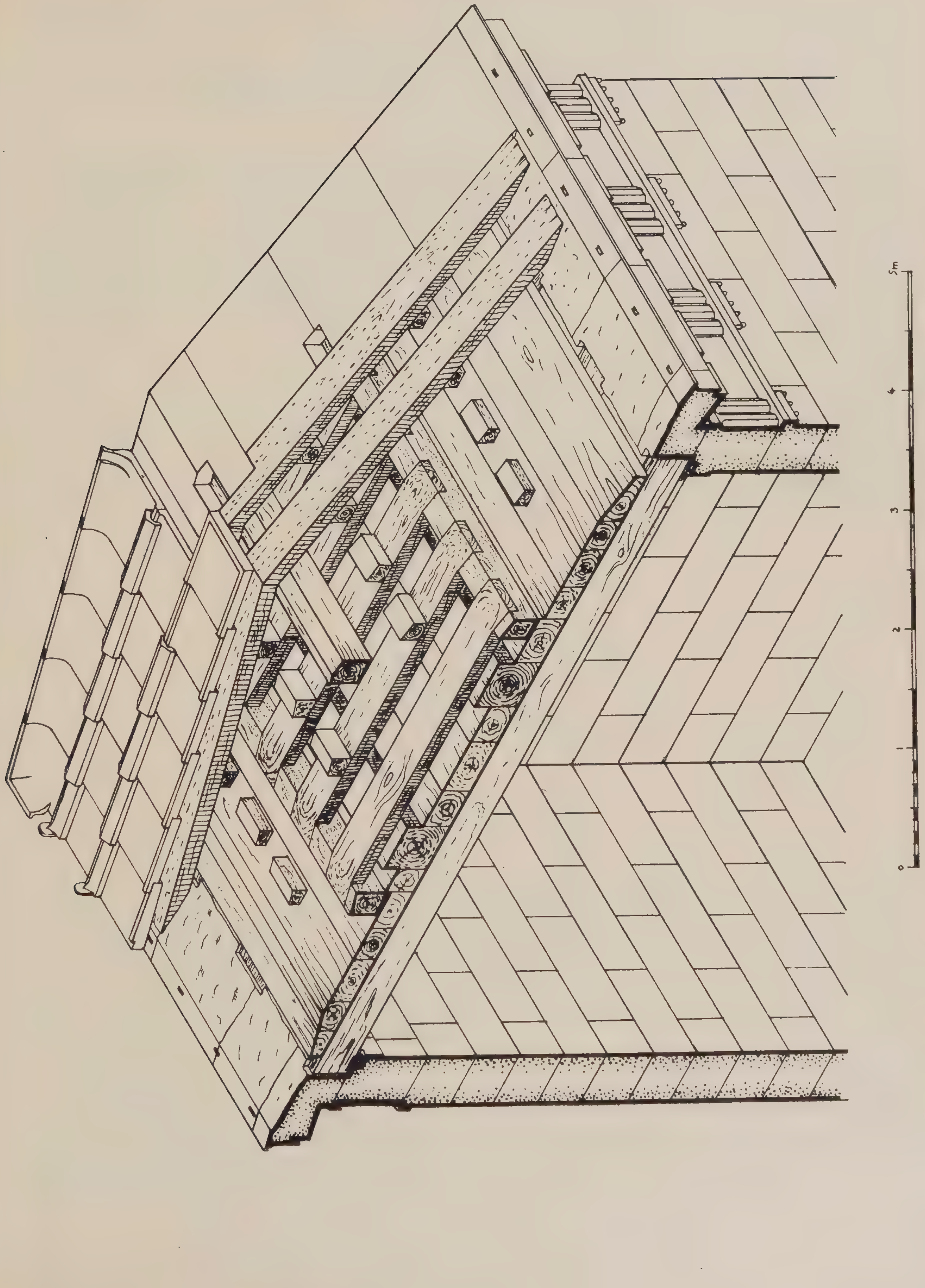


Fig. 9.—Restoration of Roof over Cella.

it may have been with the idea of allowing for their greater weight (they were, of course, much heavier than terracotta) that so elaborate a wooden structure was provided to support them.

It is also possible that these two explanations are both true, and that it was because he was worried about the weight of the marble tiles that the builder abandoned more orthodox systems and adapted the structure of a large building of proved stability—the Temple of Apollo had marble tiles.

Whatever the correct explanation, the building remains an outstanding oddity, even granting that it was constructed during a transitional period which saw many peculiar features unknown before or since. It would confirm my conclusions if a similar plan were found to have been used elsewhere, but this is most unlikely; nevertheless, a course of reasoning cannot be rejected simply because no parallel can be found. On some points, most of them expressly noted in the text, I have had to rely in my reconstruction on probability rather than definite evidence; on others the reverse has happened and I have been driven to accept the improbable by the weight of the evidence.

The employment of such a form of construction throws an interesting light on the Greeks' knowledge of engineering at that period, for an equally sound structure could have been built along much simpler lines and probably with less wood. Tempting though they be, however, such general speculations fall beyond the scope of this study, which seeks to do no more than offer a possible explanation of certain cuttings in the Athenian Treasury which must be explained somehow before we can feel satisfied that we have gleaned from the monument all the information that it has to offer.

A. Trevor Hodge

THE KHANIALE TEKKE TOMBS

(PLATES 19–30)

THE material from the Khaniale Tekke tombs was excavated by me in 1940, but most of it had not been photographed, and some vases had been left still unrepaired when the Germans invaded Crete, and they were inaccessible to me when I returned to Crete in 1945.[1]

The presence of ‘ Geometric ’ tombs on this site was first reported to me by the foreman at Knossos, the late Emmanuel Akoumianos, whose eagle eye for ancient remains was noted by Sir Arthur Evans. Immediate excavation was necessary, since the owner, Dr. Hatzakis, who has generously foregone his claims for compensation, was proposing to erect a house there.

The first trial trench which I opened on 20th January 1940 disclosed a chamber tomb with a square chamber and a long, narrow *dromos* cut in the native *kouskouras*, that white, cretaceous marl which is so prominent a feature of the landscape in Central Crete.

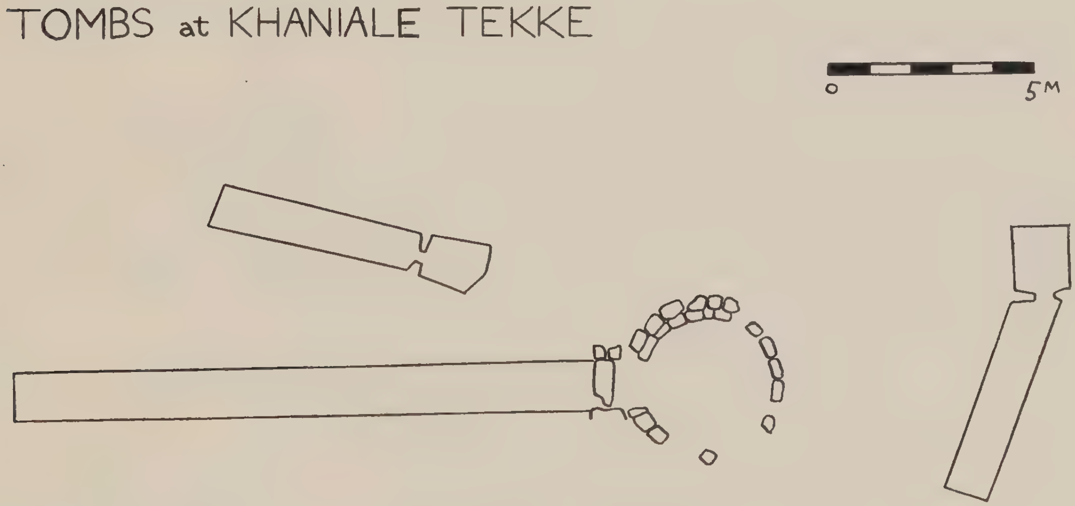


FIG. 1.—PLAN OF TOMBS.

The rectangular chamber was about one and a half metres long, with a sloping *dromos* five metres in length. The walls were rectangular and appeared just below the surface, so that we must either suppose there had been a wooden roof covered with earth of which we found no trace, or else, more probably, that the site, which is on a gentle slope, has been denuded since ancient times (FIG. 1, right).

The chamber contained an iron sword (Naue’s Type 2), two straight pins and the spring of a fibula in bronze, and a quantity of broken pottery of the orientalising period, probably representing a pedestalled krater and an amphora. There were also one or two conical lids and two small flasks imitating Cypriote types, and two monochrome ovoid pithoi.

---

[1] The drawings in FIGS. 3 and 4 are by Miss E. A. B. Petty, and that in FIG. 2 by Mr. Piet de Jong. Of the photographs, those for PLATES 20–22, 25–26 (some), 30 (76), and FIG. 5 were taken by Mr. Androulakes with the kind co-operation of Dr. N. Platon and of Mr. M. S. F. Hood, for PLATES 24–26 (some) by Mr. J. M. Cook, for FIG. 6 by Mr. G. M. Young, for PLATES 23–24 (some), 27–30 by Mr. J. Boardman. Mr. J. Boardman identified and measured objects in Heraklion Museum and compiled the Pottery and Small Finds Catalogue from that made at the time of the excavation. To all of these, especially to Mr. Boardman, I tender my hearty thanks.

In the chamber we also found a curved stone which I identified as coming from one of the upper courses of a tholos vault, and was thereby induced to prophesy, rather rashly, to my workmen the near presence of a tholos tomb or its remains. I did not, however, expect my prophecy to be verified so rapidly. On 28th January 1940 I started to excavate a round tomb which proved to be the remains of a tholos tomb, though it was not until 1st February that I found any blocks in position. A small indecipherable bronze coin and some sherds with thin black glaze suggested that the tomb might have been quarried for building stone in the fourth or third century B.C.[2] (PLATE 19).

A small gold pendant shaped like a mulberry (PLATE 29, 45) was the first indication that our tomb might have contained a rich burial, but the tomb had been thoroughly looted, and I doubt if a single object above the floor level of the chamber remained *in situ*.

On the north side of the chamber some 10–15 cm. from the wall and at a depth of 2·70 m. from the surface we found an iron sword resembling the broad-bladed group from the Halos tumuli excavated by Wace, apparently enclosed in a scabbard plated with bronze, though all that remained of the latter was a long, badly corroded plate about three-quarters of the length of the sword, and a number of small fragments (no. 59).

Associated with the sword were two small globular flasks of Cypriote form, a small oenochoe with trefoil spout, half an amber bead, some fragments of a green faience bottle with a scale pattern outlined in brown glaze (no. 79),[3] and the handle of a small bronze vase. At the same depth but situated 1·50 m. from the north jamb and 1·10 m. from the south jamb of the doorway into the *dromos* we found a fine electrum fragment consisting of a wing and a feminine arm grasping a lion by the throat (PLATE 27, 46), obviously part of a *potnia theron* group badly damaged on the funeral pyre. All these probably represent the remains of the latest burial of all (later than the two vases with the gold treasure described below).

At the same level (2·70 m. below the present ground level) we found a dainty little gold pin (PLATE 29, 49) and some other scraps of the same metal, some pieces of ostrich egg (no. 80) and fragments of Egyptian faience (or an imitation of it).

Above and around these were masses of broken pottery which was later sorted and mended to form whole or nearly whole vases; but there was no sign of stratification. Sherds of the same vases were found at all levels. The tomb appeared to have been systematically looted, but the gardener of the Villa Ariadne, Ioannis Akoumianos, who was one of the pickmen, informed me he had dreamed the previous night that he would find a treasure (what the Cretans term a λογάρι). I bade him scrape the floor diligently as in duty bound, and was pleasantly surprised to see two small holes in the virgin soil, covered only by an inch or two of sand, one on each side of the door. In each hole was a small unpainted vase insignificant in appearance but surprising in its contents (except to the gardener). The vase on the north side of the door, a small ovoid jar with everted rim (PLATE 26, 57), contained the jewellery, Catalogue nos. 1–16, PLATES 27 and 28.

The most striking object was a gold pendant with inlays of crystal and amber suspended from a chain of plaited gold with snake's head terminals (PLATE 27, 1). I do not recall an exact parallel to this ornament, but some details recall a seventh-century Etruscan necklace in the Metropolitan Museum. A plaited necklace with snake's head terminals in the Benaki Museum is attributed by Miss Segall to the Roman period,[5] but no convincing reasons are assigned for the dating, and such a date is, of course, out of question for anything in this hoard, which was untouched and sealed by the thin deposit of sand.

---

[2] For the remnant of vaulting still preserved *in situ* see PLATE 19 *b*, illustrating the typical Minoan tooling of the stones.

[3] The outlines of the scales are deeper than the rest of the surface, and so have preserved the glaze, which may have originally covered the whole vase.

Less beautiful but more intriguing is the penannular gold pendant (PLATE 27, 2) with terminals in the form of male heads framing a cross, between the arms of which perch four little birds. The heads are flattened on top in the manner typical of Cretan heads of the eighth and seventh centuries B.C., such as those of the Dreros bronzes,[6] of various Daedalic figurines, or those of the so-called Helen and Menelaus group on the jug from Arkades.[7] The obviously Cretan character of this ornament is important, because it enables us to suggest that the large lunate crystal pendant and the small pendant with amber inlay were also Cretan work, since both display the same technique of enclosing amber beads in gold cloisons. The amber, where preserved, was dark in colour, but now that true succinite has been found on Italian soil we can no longer claim the colour as evidence for a Baltic origin.

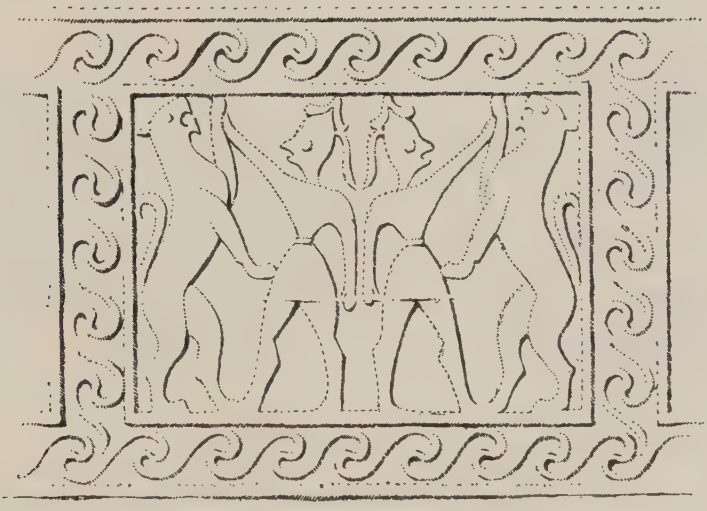


FIG. 2.—GOLD BAND NO. 3.

From the same little vase came an ivory crescent (*JHS* LXIV, pl. VIII top), a gold-mounted amber pendant (PLATE 28, 5), a round crystal pendant mounted in gold (PLATE 28, 7), a gold fillet (PLATE 28, 3), two silver pins, with gold heads in the form of 'ducks', united by a plaited gold chain (PLATE 28, 4), three gold dumps and three rectangular bars of the same metal (PLATE 28, 8–13), two globular beads of crystal and one of glass (nos. 14–16). The fillet in gold leaf bears a stamped design almost but not quite identical with that of the gold fillet in the Nelidow Collection.[8] The design is hard to see, but has been well deciphered and reproduced by the expert eye of Mr. Piet de Jong. The panel is repeated and surrounded by a running spiral band. The panel design shows two helmeted warriors back to back about to

[4] No note 4.

[5] *Museum Benaki, Katalog der Goldschmiede-Arbeiten*, pl. 28, no. 113.

[6] S. Marinatos, *BCH* LX, pl. XIII.

[7] D. Levi, *Hesp* XIV, pl. XVI.

[8] L. Pollak, *Goldschmiedearbeiten Nelidow*, pl. 4, no. 10; Reichel, *Griech. Goldrelief*, pl. 8, no. 23; Kunze, *Gnomon* XXI 6; de Jong considers they were not from the same mould.

administer the *coup de grâce* to two lions. It is the familiar oriental motive of the old Sumerian hero Gilgamish. He is more often represented alone with two lions, but the appearance beside him of his companion Enkidu is quite proper and orthodox. The fillet could possibly be local Cretan work imitating some Syro-Phoenician model. It is so like the Nelidow band, however, that at first glance one might assume that they came from the same mould. Certainly they could be designed by the same man, and the question is are they both Cretan, or both Attic, or both from Rhodes or some other source? The helmets are late Hittite in type and easy to parallel on reliefs from Carchemish, Malatia, and so on, and we know that the Gilgamish epic was translated into the Hittite languages. Both fillets might therefore have been imported from Syria or Phoenicia, or be Cretan work under Syrian influence.

On the south side of the door another little hole had been cut in the native soil and was found to contain a small feeding cup in a rather coarse red ware (no. 104) (PLATE 26), also filled with jewellery. A quatrefoil gold pendant and another of lunate form (PLATES 27, 18; 28, 19) were both furnished with cloisons obviously intended for inlaying. The inlay has vanished, but we may assume it to have been probably of amber like that of the large lunate pendant in crystal.

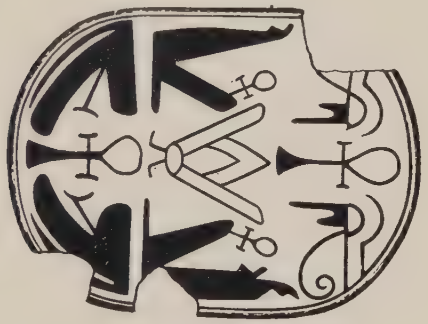


FIG. 3.—SCARAB NO. 22.

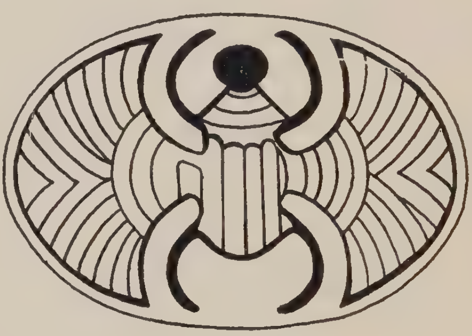


FIG. 4.—SCARAB NO. 23.

The quatrefoil pendant may be compared and contrasted with the much later and more sophisticated quatrefoil pendant in the Melos Treasure in the National Museum in Athens (assigned by Mrs. Papaspyridhi-Karouzou to the fifth century B.C.).

In the same vase was a bracelet of plaited gold and silver links with snake-head terminals (PLATE 28, 20); also another pair of silver pins with gold heads in the form of ducks and united by a gold chain, but with the shaft of one pin missing (PLATE 28, 21). The close correspondence with the other pair in the first vase emphasises the fact that the jewellery in the two vases all probably belonged to one person and that, I think, a woman.

Of the two scarabs found here the smaller one, mounted in gold, has only a decorative design, consisting of a stylised but quite recognisable scarab beetle in full flight (PLATE 29, 23, FIG. 4). The larger scarab, in light brownish-pink, has a would-be-Egyptian device composed of the *ankh* flanked by two eyes of Osiris in the top register, a lotus flanked by seated figures of *Maat* each holding an *ankh* in the centre register, and an *ankh* flanked by two almost unrecognisable vultures on the bottom register (PLATE 29, 22, FIG. 3).

I gathered from enquiries from Mr. G. Edwards of the British Museum that the scarabs might date to anywhere between 1100 and 600 B.C., but that they were certainly not Egyptian work. I take them to be possibly local Cretan work, or possibly Cypriote of the seventh century B.C., though obviously they might be earlier. I hardly imagine that '*ankh en maat*' had any more significance for the artist than the swastika had for the European maker of lucky charms (before the advent of Hitler). It is likely, however, that the Cretan lucky scarabs were not appreciably later than the Egyptian ones they copy, and we may therefore suppose these to be not later than the seventh century, nor indeed much earlier, as they were in good condition.

From the same small vase came a tiny gold ring, possibly for a child (PLATE 29, 24), a drop pendant (no. 29), and thirteen beads of crystal (PLATE 28, 30–42), glass beads, a dump and two rectangular nuggets of gold, a dump of silver (PLATE 28, 25–28), and a lunate piece of gold leaf (*JHS* LXIV, pl. IX). Nine of the crystal beads had their perforations lined with gold, which suggests the possibility that originally they were all coated with gold: crystal beads last a long time, and this spherical shape with very thin perforations is a Minoan type. It is more than possible that these beads were looted from a Minoan burial and re-used. The nuggets and dumps which were the medium of currency before the introduction of coinage agree well enough with the date suggested for this period, since although no Cretan coins proper seem to have been struck before 500, Aeginetan staters were imported in large numbers into the island early in the sixth century, and perhaps imitated in Kydonia by the middle of that period. The three gold dumps weigh 18·10, 18·95, and 19 grammes respectively, and are thus a little heavier than the Euboic stater, but agree well with the Egyptian double *kedet* and reinforce Sir Arthur Evans' suggestion that the Euboic was derived from the latter, rather than from the Babylonian standard. The two rectangular nuggets, on the other hand, weighing 16·65 and 16·90 grammes respectively, agree better with the Euboic stater and with the gold Babylonian shekel standard. The silver dump of 7·25 grammes may be half a silver Phoenician shekel.

One feature of this hoard which may or may not be significant was the predilection for lunate forms, such as the large crystal pendant with its lunate accessories, the ivory lune and the lunate gold leaf, the small gold lunate pendant, and even the penannular pendant with inset cross and birds might be reckoned a lunate form. If the electrum *potnia theron* fragment is to be connected with Artemis we have another connection with the moon. Was the owner of this jewellery perchance a priestess of Artemis?

These two little 'crocks of gold' were our most spectacular find, but the *dromos* or entrance passage had not yet been cleared properly, and was beginning to display a stratification which in the chamber had been completely destroyed by the tomb robbers of the Hellenistic period. The *dromos* was 1·3 m. wide and was cut almost level for a length of 15·30 m. At the threshold the highest surviving part of the wall was 1·46 m. from the floor, and the original ground level was exactly 3 m. above the floor of the chamber of the tholos.

The floor of the *dromos* was covered with a thin deposit of sand, above which was a carbonised deposit of about 7 cm. obviously derived from the earlier cremation or cremations. Between this tholos tomb and the chamber tomb there were traces of two funeral pyres, but it was impossible to say which belonged to which tomb, as practically no pottery was associated with them. Above the lower burnt stratum of the *dromos* was a sterile deposit about 2–3 cm. thick at the threshold to the chamber. Above this was a second carbonised deposit 10 cm. thick, obviously the remains of one or more cremations. Little was found in it except some flattened biconical burnt beads of crystal (PLATE 29, 77), but it may be assumed that the gold treasure and the bulk of the pottery from the tholos belong to this later cremation.

The lower burnt stratum continued the full length of the *dromos*, but the upper was interrupted by a layer of cut stones in the centre of the *dromos* at 3·50 cm. west of the doorway, presumably thrown there by the robbers.

The chief small finds from the *dromos* occurred in the pebble stratum immediately overlaying the lower burnt deposit. These included a gold *kriophoros* (PLATE 27, 47), and the upper part of a female *kriophoros* in double gold leaf with good modelling, probably originally plastered on a figure executed in some perishable material such as wood (PLATE 27, 48). Traces were found of a third and larger figure (part of the skirt of a chiton, a belt, and two or three long tresses?), suggesting that there may originally have been a trinity like that of Apollo and his attendant maidens at Dreros. These also are in a similar technique except, perhaps, that a hammer is not required for miniature work in gold; the gold leaf might have been applied by pressure, but the principle is the same. The man looks a trifle oriental, and I would not deny Syro-Phoenician influence, but I am inclined to regard them as Cretan work of the mid-seventh century or a little earlier. The Kriophoros pose with the feet set squarely level with each other goes back to Late Minoan times.[9]

Associated with these gold figures were three miniature vases (two oenochoae and a bowl, nos. 102, 103, 112), and also a very interesting fragment of a stone relief (PLATE 30, 76). The material is a soft white stone, apparently the local *kouskouras*, which is like chalk on the surface but hardens to the consistency of limestone when exposed to the sun. One side shows the head of a bearded man wearing a high hat and a sardonic smile, the other bears what I imagined at first to be the leg of a running man and what might be intended for a shield above, but probably the design represents a griffin. (Mr. Boardman suggests a griffin with a man in its mouth as a possible interpretation.) The fragment is unique, I think, but the workmanship is not good, and it might have been a trial piece or a preliminary sketch for something. It was found in the centre of the *dromos* at a depth of 1·70 m. and 3·30 m. west of the door of the chamber.

The *dromos* also produced one gold diamond-shaped bead and the gold iris of an eye, of which the pupil had probably been of crystal or some other material (PLATE 29, 52, 54), and a few crystal beads, biconical and flattened biconical.

Between 8 and 9·20 m. west of the doorway of the tholos a trench grave had been cut southwards from the south side of the *dromos*.

The pottery objects included a hundred and twenty restorable vases or lids, but the most interesting clay object was the model house (PLATE 20, 1, FIG. 5). Much is missing, but the restoration carried out by Mr. Zacharias Kanakis is quite certain.[10] The fragments were found at varying heights in the chamber, and it is only on stylistic grounds that I attribute it to the Geometric period.

The ninth to seventh centuries B.C. have produced other examples of clay model buildings usually from temple sites, such as those from the Argive Heraeum, Perachora, Sparta, Samos, and Lemnos. Our example is the first of this period, I think, to come from a tomb in Greece, though hut urns were well known in Italy and even in Crete (at a much earlier period). The Spartan and Lemnian examples reproduced shrines, the Samian one a house; others are more doubtful; though it is presumed that the Perachora ones represent temples. Our Knossian example, with its chimney, must surely be a house, and indeed the form with its small, high-set windows, tiny ventilation holes, and flat roof with a course of stones near the edge to keep the fierce south and north winds from blowing away the mud and reed covering, is closely paralleled by many a country cottage in Crete to-day. The projecting ledge inside at the back is too narrow to be interpreted as any form of bench, much less any suggestion of a second storey. I take it to be simply the horizontal timber often used to strengthen these mud-brick houses

[9] *Cf.* the fine bronze *Moschophoros* in the collection of Dr. Giamalakis.

[10] With the possible exception of the fanlight over the door.

from Minoan times onwards. The painted decoration of the door, however, is a fashion that seems to have died out.

The cinerary urns were represented by the typical ovoid jars, some with purely Geometric ornament, others with orientalising motives and culminating in the strange polychrome group peculiar to Knossos, with looped feet, a trick apparently invented in Palestine in the Middle Bronze Age and appearing in the Late Bronze Age in Syria and on sub-Mycenaean pottery from Cyprus. The decoration recalls Assyrian motives and even the colour scheme of Assyrian painted bricks of Ashurnazirpal II, but it was applied after firing and is apt to flake away.

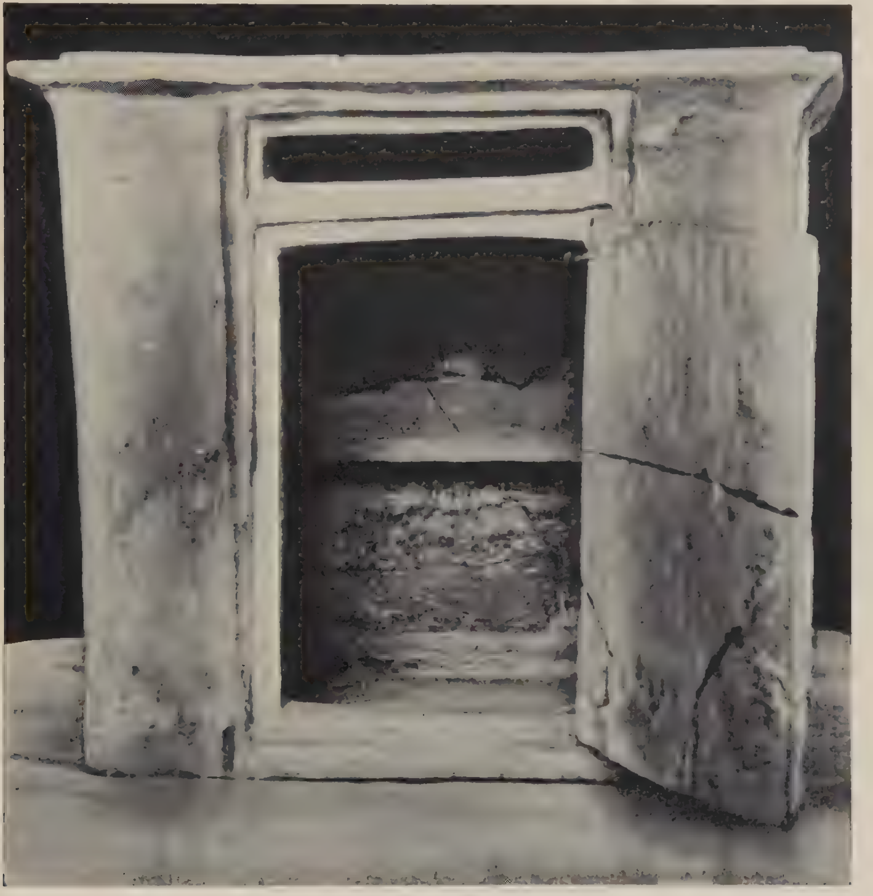


Fig. 5.—House Model No. 1.

Vase no. 7 (PLATE 21) came from the chamber between 25 and 60 cm. above the floor, vase no. 10 (PLATE 21) from the first metre of the chamber. One sherd of vase no. 15 (PLATE 22) came from the lower burnt stratum in the *dromos* and apparently from the earlier cremation stratum. The hopeless disturbance in the chamber made it impossible to record stratification, though there was a tendency for the polychrome vases to occur at high levels (and never in the *dromos*). Thus pithoi nos. 3 and 4 (PLATES 20, 21) occurred in the lowest metre; pithos no. 5 (PLATE 20) between 30 and 40 cm. from the floor.

Most of the ovoid pithoi had their own lids, and probably all of them were originally lidded. Many lids look like an upturned conical bowl, but some are in the form I would call shield lids. Payne suggested that a pot of this type represented a votive shield, and I regard this as certain; for the polychrome lid of the pithos no. 3 (PLATE 20) has a handle in the form of a doe's head recalling the similar plastic bosses on one or two of the Cretan bronze shields. Other ' shield lids ' were found in this tomb without any vase being associated with them, and the fact that they have either one handle or two suspension holes suggests they were normally hung up on the wall either as votive shields or merely as decorations. Usually they have concentric bands of decoration somewhat analogous to the concentric bands that occur in the *repoussé* technique on bronze shields, though the individual geometric or floral motives are different.

The most interesting of these shield lids (FIG. 6, 52) has for its central ornament an octopus of very Minoan appearance.[11] We may recall the practice of adorning shields with heraldic blazons and speculate whether this was simply a reproduction of some antique, such as an engraved gem, or whether there was still at Knossos in the seventh century B.C. an old family that bore a Minoan blazon on its shields. On the mainland, at least, there were plenty of families that boasted of a Bronze Age pedigree, and in Crete itself St. Paul's disciple St. Titus was claimed by church tradition to be descended from the old royal family. I have heard the same claim made for St. Myron, but have not seen documentary evidence for it.

Many vases in this tomb, including a number of oenochoae and aryballoi, were copies of or strongly influenced by contemporary vases in Cyprus. A curious askos coated with a red slip and adorned with incised and punctured circles is probably to be interpreted in this way rather than as an attempt to reproduce a Cretan neolithic vase (PLATE 25, 111).

There were no certain importations from Cyprus or Corinth, though there was an imitation Protocorinthian skyphos (PLATE 26, 77). The pyxis (PLATE 25, 55) looks rather foreign, but might be a good local imitation; Mr. Brock suggests it might be a Cycladic import.

Fragments of the polychrome amphora (PLATE 20, 5) were found in this deposit on the south side of the chamber, and this may have been the cremation urn of this burial.

Since there was no stratification inside the chamber, of which the contents had been turned upside down by the Hellenistic robbers so that fragments of the same vases were found at all levels, it has been necessary to date the vases by style only. I have had the great advantage of discussing the photographs with my friend Mr. J. K. Brock, and I follow his classification of pottery here, though he is, of course, not responsible for any individual statement of mine.

The *dromos* showed two clear floor levels with a quantity of sterile earth between them, but the number of ovoid pithoi used for cremations indicates that there must have been at least nineteen cremations here during the period 850–630 (Brock's Protogeometric B to late Orientalising), and an unspecified number of inhumations here during the Bronze Age.

Two or three Middle Minoan sherds were found and three rim fragments from a L.M. III sarcophagus with typical fabric and paint but no clue to the decoration. After that the earliest fragment, possibly a stray, was the neck and handles of a Protogeometric amphora.

Several small cups and aryballoi belong to the Protogeometric B phase (850–820 B.C.), and one burial at least must be assigned to this period.

There is no evidence for a cremation in the early Geometric period (though one vase might be dated to that age), but the tomb was certainly opened for another cremation in the Mature Geometric period (800–770 B.C.), to which we may assign cremation pithoi nos. 6 and 11 (PLATES 21–22) and the two pedestalled kraters no. 19 and 20 (PLATES 21, 25), both probably imported from the Cyclades.

---

[11] *Cf.* Alexiou, *Kretika Khronika* IV, pl. 14.

To the Late Geometric period (770–735 B.C.) we may probably assign ovoid pithoi nos. 2 and 16 (PLATE 22), the basket-handled jars (PLATE 24, 34–38), and perhaps some of the Cypriote types of aryballoi with concentric circles on the body (PLATE 26, 58–64).

Several cremations took place during the Early Orientalising period (735–680 B.C.), to which belong the monochrome ovoid pithoi nos. 7, 10, 16, and 17 and polychrome pithoi nos. 3, 4, and 5 (PLATES 20, 21). Other Early Orientalising vases include some cups (PLATE 26, 83, 91) and some shield lids (PLATE 23).

I am inclined to attribute to the same period the clay house and the gold finds from the *dromos*, including the *kriophoroi*. Certain other finds from the earlier cremation stratum in the *dromos* may also be contemporary, such as some flattened biconical crystal beads (of a kind not found elsewhere in this tomb) and some fragments of bronze, perhaps from tripods, including the heads of one doe and two horses (PLATE 30, 56–58); a couple of fibulae Blinkenberg Type III 10 (PLATE 29, 62), two or three cornet-shaped objects of the same metal (PLATE 29, 64), the ivory head of a bronze pin (PLATE 29, 71), a diamond-shaped gold mounting for a gem (PLATE 29, 54), and at least one iron spearhead, all from the lower burnt deposit on the floor of the *dromos*.

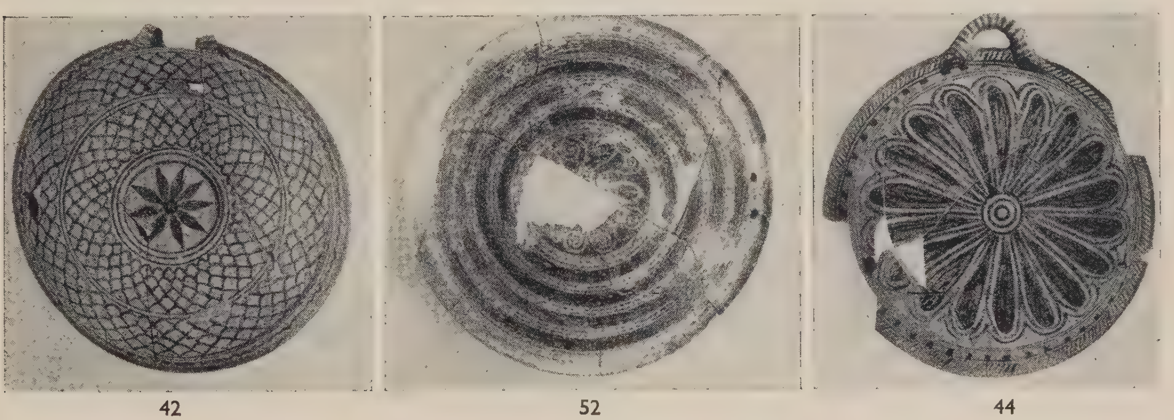

42 52 44

Fig. 6.—Lids Nos. 42, 44, 52.

About 7·50–8 m. west of the doorway we found some biconical beads of crystal (one of the commonest shapes in Mesopotamia, but comparatively rare in Crete), and a similar bead in the upper burnt stratum, together with a pomegranate pendant and the head of a horse in bronze (PLATE 29, 61 and PLATE 30, 57). Between 10 and 17 m. west of the doorway the lower burnt stratum, here some 7 cm. thick, produced some segmented faience beads of Egyptian type and some tiny globular faience beads (no. 78).

Between 13 and 14 m. west of the door the *dromos* was intersected on the south side by a later burial containing an amphora with the rim and base missing (no. 23), a lekythos of Cypriote form and a pedestalled cothon with lid attached (no. 94). These were heavily encrusted with a limelike deposit, and it was impossible to guess at their original decoration when I saw them.

A third chamber tomb with a trapezoidal chamber was discovered a few metres north-west of the tholos. The material from this has not been examined in detail, and will not be published here. It contained one gold bead, a pair of bronze tweezers, and the following objects in iron: a sword with a bronze pin for attaching the hilt, two spears, a double adze, a knife (?), a chopper, and a razor. There was a quantity of Geometric pottery, including parts of two large pedestalled kraters and a few L.M. III *larnax* fragments from the *dromos*. There was also part of an amber bead and a small clay ox.

R. W. Hutchinson

CATALOGUE OF FINDS

The following catalogue is based on that which was compiled at the time of digging, and is supplemented by notes made since the war. The illustration of the pieces is, however, not complete, as not all of them have yet been identified in Heraklion Museum. Thanks to the co-operation of Dr. Platon, there is not a serious omission, and no important find is not figured here. The catalogue is in two parts, Pottery and Small Finds, including jewellery, numbered independently, not consecutively. Detailed descriptions of the decoration are omitted where the piece is adequately illustrated and preserved, or has been more fully discussed in the text.

Pottery

House Model.

1. PLATE 20, FIG. 5. A clay house model with chimney and a separate door. Height (at front) 29·7, (at back) 31·0; breadth (at bottom) 28·8, (at top) 33·5; front to back (at bottom) 26·5, (at top) 32·3.

Polychrome Pithoi. The colours are red and grey on a chalky-white or cream slip.

2. H. 71·0. Conical lid with small open vase as knob, and wheel decoration. Decoration on the body mostly gone but for bands of vertical bars. The foot has square, triangular, and diamond-shaped fenestrations.
3. PLATE 20. H. 43·0. Shield lid with plastic doe's head. Looped foot. A vase from the Fortetsa cemetery is by the same hand.
4. PLATE 21. H. 59·0. Conical lid with knob handle. Conical foot.
5. PLATE 20. H. 59·0. Conical lid with tongue decoration. Tongue band on the shoulder. Looped foot.

Monochrome Pithoi. All bear traces of a light creamy slip.

6. PLATE 21. H. 61·0. Two double-moulded handles. Conical lid and flat base.
7. PLATE 21. H. 58·0. Conical lid with knob handle; white outline tongues as decoration. Looped foot.
8. PLATE 21. H. 58·0. Plain conical lid. Looped foot.
9. PLATE 21. H. 43·0. White concentric circles on the lip and central body bands. The arch handles are double-moulded. Flat base.
10. PLATE 21. H. 53·0. Conical lid with knob. White concentric circles on body band. Flat base.
11. PLATE 22. H. 53·0. Conical lid with knob. The lines are in white. Flat base.
12. Pithos with panel enclosing bands of lozenges, zigzags, chevrons, and a hatched maeander.
13. Pithos with banded ornament of tongues and a hatched maeander.
14. Pithos with a metope design, including lozenges and a hatched maeander band.
15. PLATE 22. H. 37·0, without the lid. Flat-topped lid and flat base.
16. PLATE 22. H. 61·0. Conical lid with moulded knob. Flat base. On the side not illustrated a hatched maeander in the shoulder panels.
17. PLATE 22. H. 63·0. Conical lid with moulded knob. Looped foot.
18. PLATE 22. H. 27·0. Flat base. A fragmentary lid with white horizontal stripes on it is preserved.

Kraters.

19. PLATE 25. H. 55·0. Ribbed pedestal. Single handles with a bridge to the rim. Knob protrusions on the rim at either side of the handles. A light cream slip: perhaps Cycladic work.
20. PLATE 21. H. 23·0. Pedestal with simple moulding at the top. Unslipped.

Amphorae.

21. Preserved H. 23·0. Slim amphora (shape as 22) without foot. White zigzag bands on the shoulder.
22. PLATE 21. H. 35·0. Zigzags on lip, neck, and body.
23. Fragmentary amphora with concentric circles in bands without dividing lines. From the grave beside the *dromos*.

Hydriae, Jugs, and Oenochoae.

24. PLATE 21. H. 29·0. Hydria. The lip is restored.
25. PLATE 21. H. 33·0. The decoration in a reserved panel.
26. PLATE 20. Preserved H. 21·0. The neck is missing.
27. PLATE 21. H. 29·0. Slim one-handled jug with white painted zigzags and triple-line bands.
28. PLATE 25. H. 24·0. Slim one-handled jug.
29. PLATE 21. H. 32·0. Slim-necked oenochoe with trefoil lip.
30. Preserved H. 8·5. Jug with its base missing. On the neck a wavy line band within double straight lines.
31. PLATE 25. H. 11·5. Squat oenochoe with trefoil lip.
32. Fragmentary jug with base missing. Decoration of concentric circles and horizontal lines.
33. Preserved H. 12·0. Jug with bellying profile. Neck and handle missing. Two groups of horizontal lines on the body.

Spherical Jugs with Basket Handles. A light creamy slip is still apparent on some.

34. PLATE 24. H. 34·0.
35. PLATE 24. H. 32·0.
36. PLATE 24. H. 32·0.
37. PLATE 24. H. 32·5.
38. PLATE 24. H. 32·0.

Shield Lids with a Single Loop Handle.

39. PLATE 23. D. 23·0.
40. PLATE 23. D. 24·0.
41. PLATE 23. D. 23·0.
42. FIG. 6. D. 26·0.
43. PLATE 23. D. 25·0.
44. PLATE 26, FIG. 6. D. 25·5.
45. D. 26·0. Decoration as 42 but octofoil on base.
46. D. 23·0. Decoration as 42.
47. D. 25·0. Decoration as 42.
48. D. 25·0. Tongue pattern and a band of opposed double semicircles (as on body of 37) in white at the rim.

Dishes Pierced at the Rim with Two Holes. Probably used as lids. All but no. 54 bear light on dark decoration.

49. D. 19·0. Concentric circles in white paint in a band.
50. PLATE 23. D. 20·0.
51. PLATE 23. D. 20·0.
52. FIG. 6. D. 19·0. *Kretika Khronika* IV, pl. 14, bottom right.
53. PLATE 23. D. 20·0.
54. PLATE 23. D. 22·0.

Pyxides.

55. PLATE 25. H. 15·0. A light creamy slip. Possibly Cycladic work.
56. H. 15·0. Spherical pyxis with horizontal ribbon handles.
57. PLATE 26. Spherical pyxis with everted rim. Contained jewellery (nos. 1–16).

Spherical Flasks of Cypriot Shape.

58. PLATE 26. H. 13·5.
59. PLATE 26. H. 13·0.
60. PLATE 26. H. 9·5.
61. PLATE 26. H. 10·0.
62. PLATE 26. H. 8·5.
63. PLATE 26. Preserved H. 9·5. Lip restored.
64. H. 16·0. Zigzag on the neck and bands on the body.
65. PLATE 24. H. 31·0. Twisted handle and pedestal foot.

Aryballoi or Squat Jugs.

66. H. 8·4. Neck missing. Dotted lozenges on the shoulder; step pattern in a band below.
67. H. 6·5. Plain circling bands.
68. PLATE 26. H. 3·0. Leaf pattern on the shoulder.
69. Miniature jug bearing a row of dots and horizontal bands.
70. Miniature jug. Net pattern on the shoulder.

Skyphoi and Kantharoi.

71. PLATE 26. H. 7·0.
72. H. 8·0. Panel of chevrons.
73. H. 5·0. Decoration as 72.
74. H. 7·0. Decoration as 72.
75. PLATE 26. H. 9·0. Melon-ribbed. White zigzag decoration in bands.
76. PLATE 26. H. 9·5. Protocorinthian shape.
77. PLATE 26. H. 12·0. Imitation of Protocorinthian.
78. H. 10·0. Flat-based kantharos. A maeander flanked by lozenges and triangles.

Cups. 79–91 are one-handled.

79. PLATE 26. H. 11·0. Mastoi on the body.
80. PLATE 26. H. 12·5. Pedestalled.
81. PLATE 26. H. 8·5.
82. H. 9·5. Mastoi on the body. A single zigzag in the reserved panel.
83. PLATE 26. H. 10·0. Light cream slip.
84. PLATE 26. H. 11·5.
85. H. 10·0. Lattice pattern in white.
86. H. 10·5. Decoration as 85.
87. H. 11·0. Cable pattern bands in white.
88. Fragmentary. The cup had a high rim. Zigzags and maeander in metopes, and scales below.
89. Fragmentary. Metope pattern of lattice, wheels, and St. Andrew's cross.
90. H. 3·5. Handle and base gone. Tooth decoration in a panel. Two mastoi.
91. PLATE 26. H. 14·0.
92. H. 12·0. Fragmentary two-handled cup with a pedestal base. A band of running spirals.
93. H. 5·0. Two-handled cup with a wavy line between girding bands.

Other Shapes.

94. Pedestalled cothon with lid.
95. PLATE 25. Two-handled jar. H. 12·0. Found on floor of chamber.
96. Miniature kalathos. H. 5·0. Reserved cross on the base. On the body a cable between girding lines; below, a frieze of teeth.
97. Miniature kalathos. H. 4·0. A zigzag band.
98. Amphoriskos.
99. Miniature bowl. H. 3·0. Plain painted.

Coarse and Incised Pottery. The fabric is dark red.

100. Oenochoe. H. 13·0. Trefoil lip; the neck is as high as the body, which is spherical. Incised lozenges on the shoulder and a wavy line below.
101. Squat jug. H. 12·0.
102. Miniature oenochoe. H. 4·5. Similar to 103, but a light moulding at the top and the base of the neck.
103. PLATE 26. Miniature oenochoe. H. 5·5. Trefoil lip.
104. PLATE 26. Feeder. H. 17·0. Contained jewellery (nos. 17–44).
105. PLATE 26. Stand or brazier. H. 16·0.
106. PLATE 26. Stand or brazier. H. 16·0.
107. PLATE 26. Stand or brazier. H. 15·0.
108. Fragment of stand or brazier. Preserved H. 14·0.
109. PLATE 26. Kernos. H. 14·0. Quadruple, of one-handled mugs, and on four pillar legs.
110. Kernos. H. 13·5. Fragmentary; as 109.
111. PLATE 25. Askos. H. 19·0. A polished surface.
112. Miniature bowl. D. 6·5. Brown fabric.

SMALL FINDS

Contents of Vase no. 57. See *JHS* LXIV, pl. 8 (omitting central scarab).

1. PLATE 27. Crescent-shaped crystal pendant set in gold, and subsidiary pendants with crystal and amber inlays. Gold chains with snake's head terminals.
2. PLATE 27. Penannular gold pendant with male head terminals. Within, a cable cross with four birds between the arms.
3. PLATE 28, FIG. 2. Stamped gold fillet with design of two warriors and lions recurring.
4. PLATE 28. Two silver pins with gold heads in the form of birds. Linked with a gold chain. *Cf.* no. 21.
5. PLATE 28. Rectangular amber spacer-bead set in gold as a pendant.
6. *JHS* LXIV, pl. 8 top. Ivory crescent.

7. PLATE 28. Round crystal bead set in gold.
8–13. PLATE 28. Three rectangular nuggets and three dumps of gold.
14–15. *JHS* LXIV, pl. 8 below gold fillet. Two globular crystal beads.
16. Globular glass bead.

Contents of Vase no. 104. See *JHS* LXIV, pl. 9.

17. *JHS* LXIV, pl. 9 below centre. Semicircular plate of gold leaf.
18. PLATE 27. Quatrefoil gold pendant with cloisons for inlay.
19. PLATE 28. Semicircular gold pendant with cloisons for inlay.
20. PLATE 28. Chain (? bracelet) of interwoven gold and silver links with snake's head terminal.
21. PLATE 28. Two silver pins with gold heads in the form of birds. Linked with a gold chain. *Cf.* no. 4.
22. PLATE 29, FIG. 3. Brown paste scarab with hieroglyphic design.
23. PLATE 29, FIG 4. White paste scarab with stylised beetle design.
24. PLATE 29. Gold ring.
25–28. PLATE 28. Two rectangular nuggets and one dump of gold; one dump of silver.
29. *JHS* LXIV, pl. 9, top left, below end of necklace. Drop pendant of crystal.
30–42. PLATE 28. Thirteen crystal beads, nine of them with gold-lined perforations.
43–44. Two globular glass beads.

Gold and Electrum. See *JHS* LXIV, pl. 10.

45. PLATE 29. Gold pendant in the form of a berry.
46. PLATE 27. Fragment of a *potnia theron* group in electrum.
47. PLATE 27. Male *kriophoros* in gold.
48. PLATE 27. Upper part of a female *kriophoros* in gold.
49. PLATE 29. Gold pin with moulded head.
50. *JHS* LXIV, pl. 10, bottom right. Gold band decorated with impressed dots.
51. *JHS* LXIV, pl. 10, bottom left. Gold ribbon split into three strands.
52. PLATE 29. Two gold beads (one illustrated).
53. Possibly part of the back hair of a figure resembling the *kriophoroi* nos. 47, 48 but larger.
54. PLATE 29. Gold eye.
55. Gold bezel of a ring.

Bronze.

56. PLATE 30. Doe's head turned to the left. Protruding eye and broken ears.

57. PLATE 30. Horse's head turned to the right.

58. PLATE 30. Fragments of animal figurines, including the rumps and hind legs of horses. They stood on bronze rods, circular in section, fragments of which preserve the animals' and possibly human feet. They may have been attached to a bronze vessel.

59. Fragments of thin bronze plate, width *c.* 6·0. Decorated with vertical grooves, some with cable pattern, some with rows of circular bosses. They may be from a scabbard; others from tripod legs, or, in view of their thinness, covering plates to wooden furniture or boxes. With them is the handle of a small bronze vase.

60. Two horses' heads.

61. PLATE 29. H. 4·8. Pomegranate-shaped pendant.

62. PLATE 29. W. 4·0. Knob fibula (Blinkenberg Type III 10), and another (not illustrated).

63. PLATE 29. Length 5·3. Rod with bead-like mouldings: possibly part of a straight pin.

64. PLATE 29. Length *c.* 2·5. Conical objects with two side flanges; cut from bronze sheet and bent into their present form (two illustrated).

65. PLATE 29. Bronze pin heads.

66. PLATE 29. W. 6·0. Part of a mirror support. The feet of a standing draped woman standing on an Ionic capital (one volute broken). A sixth-century type, perhaps not from this tomb but preserved with other material from the tomb in Heraklion Museum.

67. PLATE 29. Pin head with moulded knob and rings below.

68. Fragments of ring handles. Section rectangular; the largest has a section 3·0 × 0·3, the smaller are dumpy, 1·7 square, with a total diameter of *c.* 5·0.

69. Small fragments of the rim and legs of small tripod lebetes.

Bone or Ivory.

70. PLATE 29. Two fragments of handles(?) with carved rings and studs.
71. PLATE 29. Head of a bronze pin, with incised circles.
72. PLATE 29. Studs (one illustrated) with grooved edges; one is pierced across its top.
73. PLATE 29. Two lentoid objects with circular perforations.

Iron.

74. Fragments of swords and spear blades.

Stone.

75. Minoan horns of consecration in soft limestone bearing the marks of both the carbonised layers, showing that it had been turned out into the *dromos* before the first cremation (PLATE 19 *a*).

76. PLATE 30. Fragment of hard *kouskouras* plaque with relief on either side.

Beads.

77. PLATE 29. Paste, glass, and steatite beads. The one top right in the illustration is flat with grooved edges.

78. Miniature faience beads.

Other Materials.

79. Fragments of a green faience bottle with a scale pattern outlined in brown.

80. Fragments of ostrich egg, perhaps from a rhyton.

JOHN BOARDMAN

MYCENAE 1939–1953

PAGE

Part I. Preliminary Report on the Excavations of 1953 231
By A. J. B. Wace.

Part II. The Grave Circle 244
By A. J. B. Wace and F. H. Stubbings.

Part III. A Possible Middle Helladic Fortification Wall 248
By K. R. Rowe.

Part IV. The 'Gallery' in the North Wall 254
By K. R. Rowe and A. J. B. Wace.

Part V. Four Tombs 258
By V. R. d'A. Desborough.

Part VI. The Cyclopean Terrace Building and the Deposit of Pottery beneath It 267
By Elizabeth B. Wace.

Part VII. A Bronze Founder's Hoard 292
By F. H. Stubbings.

Part VIII. A Winged-Axe Mould 297
By F. H. Stubbings.

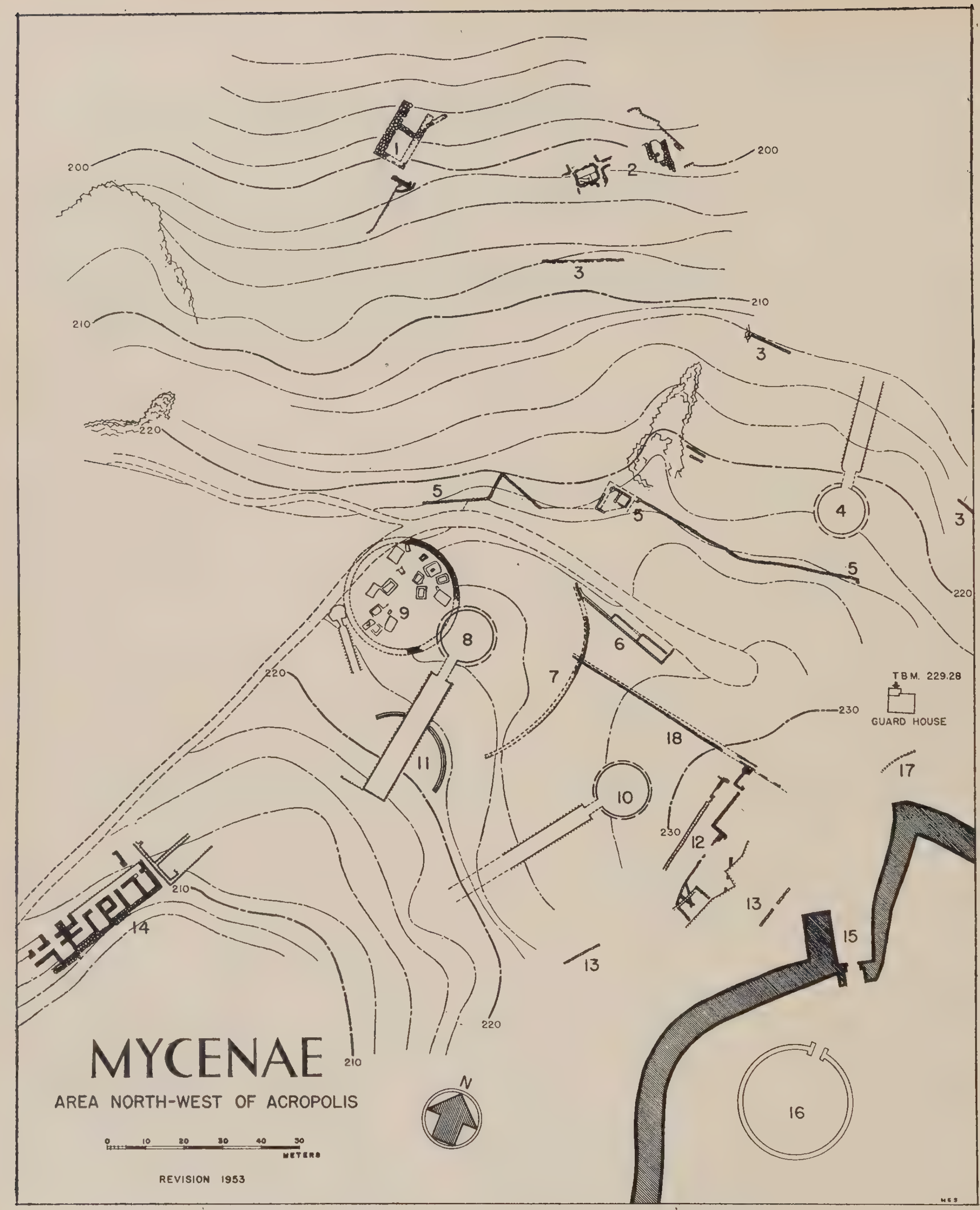

200
1
2
200
3
210
210
3
220
5
5
4
3
5
220
9
8
6
7
220
TBM. 229.28
GUARD HOUSE
230
18
17
11
10
230
12
210
14
13
15
13
220
210
MYCENAE
AREA NORTH-WEST OF ACROPOLIS
0 10 20 30 40 50
METERS
REVISION 1953
N
16
MES

Fig. 1.—Mycenae: Area North-West of Acropolis.

1. Cyclopean Terrace Building (House of Wine Merchant).
2. Petsas' House.
3. Hellenistic Terrace Walls.
4. Lion Tomb.
5. Lower Town Wall, Hellenistic.
6. Perseia Fountain House.
7. Poros Wall.
8. Tomb of Clytemnestra.
9. Middle Helladic Grave Circle.
10. Tomb of Aegisthus.
11. Theatre, Hellenistic.
12. Prehistoric Cemetery, M.H. to L.H. II.
13. Mycenaean Terrace Walls.
14. House of Sphinxes, House of Oil Merchant, House of Shields.
15. Lion Gate.
16. Late Helladic I Grave Circle (Schliemann).
17. Water Channel.
18. East–West M.H. (?) Wall.

MYCENAE 1939–1953

PART I. PRELIMINARY REPORT ON THE EXCAVATIONS OF 1953

(PLATES 31–40)

1. INTRODUCTION

THE British excavations at Mycenae in 1953 were continued with a research grant from the American Philosophical Society assisted by contributions from the Universities of Cambridge and Oxford, the British Academy, Bollingen Foundation, and the British School at Athens, under whose aegis the excavations were conducted. The Institute for Advanced Study at Princeton has provided an ideal base for preparing the material for publication.

The excavations began on July 8th, and work ceased on August 24th. On August 25th the bulk of the finds was moved to the Nauplia Museum and stored in the room reserved for the finds from Mycenae. The finds from 1952 are already in this room. We improved its facilities this year by the erection of some wooden shelving. The days from August 26th to August 30th were spent at Nauplia in studying and arranging the finds and in photography. The carved ivories, the tablet and seal impressions have been taken to Athens, but the stone vases were taken to the Nauplia Museum with the pottery.

The staff of the excavation in addition to my wife and myself consisted of Lord William Taylour of Trinity College, Cambridge, Miss Elizabeth Wace of Newnham College, Cambridge, and Miss Linda Witherill of Radcliffe College, both also from the Institute of Archaeology, London University, Mr. George Huxley of Magdalen College, Oxford, and Mr. T. Leslie Shear, Jr., of Lawrenceville School. Miss Marian Holland of Bryn Mawr College and Columbia University was architect. Mr. David Smollett came at the beginning of the season to make additions and corrections to the survey. Mr. Vincent Desborough of Manchester University joined the party to undertake a special study of the Late Bronze Age and Early Iron Age pottery. Mrs. T. Leslie Shear paid us many visits and helped us in many ways. We are much indebted to her. The British School lent equipment, and the American School and the Agora Excavations helped in various ways, for which our thanks are due to Mr. J. L. Caskey and Professor Homer Thompson. Miss Alison Frantz of the Agora staff kindly took some special photographs. On the site and at Nauplia the photography was undertaken with great success by Miss Wace and Mr. Shear. Mr. J. M. Cook, Director of the British School, and Mr. John Boardman, the Assistant-Director, both supported us in many ways, and Mrs. Rabnett, the secretary, as usual most efficiently made administrative and financial matters easy. Orestes Dases was again our foreman, and Arghyris Marines was a competent and skilful technician.

The Greek Ministry of Education generously granted the application for the renewal of the excavation permit. Dr. I. Papademetriou, who was at the same time continuing his successful excavations in the Middle Helladic Grave Circle, was the representative of the Ministry, and always gave us friendly and courteous help. The Nomarch of Argolis, Mr. Antonios Svokos, again proved himself a keenly interested and valued friend.

The principal objectives of the campaign[1] were the following: corrections and additions to the survey of the area north-west of the Lion Gate made by Mr. Smollett the previous year, further investigation in the Prehistoric Cemetery to the west of the Lion Gate, exploration of the Poros Wall and the adjoining area south of the Perseia Fountain House, the excavation of the houses, now known as the House of Shields and the House of Sphinxes, to the north and south of the House of the Oil Merchant, additional work in the Cyclopean Terrace Building complex, and finally, the beginning of the excavation of the area between the South House and Tsountas' House, the one remaining unexcavated portion of the citadel.

---

[1] See throughout the map of the area in FIG. 1.

This report was written at Princeton in the winter of 1953–54 while I was a member of the Institute for Advanced Study. It has been read by my wife and our daughter, whom I have to thank for many improvements, but the responsibility for it remains mine. Mr. Herschel Shepard of Princeton University has assisted in preparing the plans for publication.

2. THE PREHISTORIC CEMETERY

In this area work was continued both in the northern and in the southern sector. In the south adjoining the area where the griffin ivory plaque and other ivories were found in 1952 [2] a section was dug to ascertain whether the ivory deposit had extended in this direction, but our hopes failed to materialise. We found, however, in this part five more Middle Helladic Graves (Numbers XXXV–XXXVIII, XL). None of these contained any funeral offerings and they were simple unenclosed burials in shallow pits. Grave XXXVIII, which had been disturbed, seemed to have been roughly circular and to have been covered by a round stone slab. It thus may have resembled Grave XXVIII found in 1952.[3] Most of the graves were those of children. On the west side of this part was found the clay layer which covered the mound of earth piled over the dome of the ' Tomb of Aegisthus '. Below the clay layer only M.H. pottery was found together with a little L.H. I and II ware. Above the clay layer was L.H. III pottery mixed with Hellenistic sherds. At one point sunk into the clay layer was a small cistern or vat about 1·40 m. deep. The base consisted of the lower part of a clay pithos (0·70 m. high) mended with lead rivets and the upper part of small blocks of poros carefully cut and fitted. The lip of the vat was approximately level with the top of the clay layer, and a semicircular terracotta channel 0·90 m. long and 0·13–0·20 m. wide led into it. This apparatus is probably Hellenistic, but it is unlikely that it had any connection with the Hellenistic graves found slightly to the north,[4] for the vat or cistern looks as if it were intended to collect rain-water, and its top is about on the same level as the tops of the graves. It still seems strange that burials took place here in Hellenistic times within the walls of the lower town.

To the north a section was excavated immediately to the north of the area dug in 1952. Here only one M.H. grave was found, an unenclosed burial of an adult without any funeral gifts, Grave XLI. Just to the north of this grave are the ruins of a long east–west wall [4a] which seems to be of Middle Helladic date. The wall here at its eastern end is much ruined, and above its ruins three burials were found. One is a small grave, No. XXXIX, of L.H. IIIC date in a small stone sarcophagus and two Geometric Graves, G. I, a pithos burial, and G. II, a cist grave. The twenty-two vases from these graves are published by Mr. Desborough in Part V, together with the two vases from a proto-Geometric grave found sunk into the ruins of the House of Shields.

It has not so far been possible to determine the extent of the Prehistoric Cemetery outside the Cyclopean Walls. The graves so far found just to the north-west of the Lion Gate run as far as the ‘ Tomb of Aegisthus ’. Between this tholos, however, and the Perseia there seem to be no graves. Farther westwards is the ‘ Tomb of Clytemnestra ’ and adjoining that on the west the Middle Helladic Grave Circle now being excavated by Dr. Papademetriou. On the south side of this is a chamber tomb. Whether the ‘ Lion Tomb ’ which lies on the north side of the ridge is also to be reckoned as belonging to this cemetery is uncertain, but it is so close that we may be justified in considering it within this area.

---

[2] *BSA* XLVIII 8, pls. 4, 5.

[3] *BSA* XLVIII 7, pl. 3 *c*, *d*.

[4] *BSA* XLVIII 9, pl. 10 *c*.

[4a] FIG. 1 (18).

It is interesting that the nine tholos tombs of Mycenae lie in three sets of three in different cemetery localities. The ‘ Tomb of Aegisthus ’, the ‘ Lion Tomb ’, and the ‘ Tomb of Clytemnestra ’ lie close together in the Prehistoric Cemetery. The ‘ Epano Phournos ’, the ‘ Panagia Tomb ’, and the ‘ Treasury of Atreus ’ lie together near the Panagia Chapel on a ridge honeycombed with chamber tombs. The ‘ Cyclopean Tomb ’, the ‘ Kato Phournos ’, and the ‘ Tomb of Genii ’ lie on the west slope of the main west ridge stretching northwards from the ‘ Epano Phournos ’, where again there are many rock-cut chamber tombs. We cannot tell whether this local arrangement of the tholos tombs has any significance, but it is interesting that each of the three areas contains one tomb of each chronological and architectural group of tholos tombs.[5] It is idle to speculate what the meaning, if any, of this may be. We can only state the facts and leave their interpretation for subsequent research.

3. The Poros Wall

We continued our investigation of this area, which covers practically the whole of the region south of the Perseia Fountain House between the ‘ Tomb of Aegisthus ’ and the ‘ Tomb of Clytemnestra ’. The results of this work will be published by Lord William Taylour. A brief summary has been given in the *Journal of Hellenic Studies*.[6]

4. The Houses

We continued exploration of this region (PLATE 31, *a*) north and south of the House of the Oil Merchant, which was excavated in 1950 and 1952, with most interesting discoveries. The house [7] to the north, where in tests in 1952 we found fragments of stone vases and part of a model figure-of-eight shield in ivory, is now called the House of Shields. Since the house [8] to the south found in 1952 abuts on the House of the Oil Merchant we were at first uncertain whether it was a separate house or an annex of the Oil Merchant's house. Now excavation has shown that it is a basement house similar in construction to that of the Oil Merchant, but at a slightly lower level, probably due to the natural slope of the hill southwards (see plan, FIG. 2). Here in 1952 we found a storeroom filled with vases and a small ivory plaque with a sphinx in low relief. From this plaque and others with sphinxes, mentioned below,[9] this house is now called the House of Sphinxes. The three houses form a row on a kind of terrace on the rocky hillside far removed from any protection which the Cyclopean walls could afford, and as suggested [10] they possibly flanked a road which led up towards the Lion Gate. This year we did not do any further work in the House of the Oil Merchant because the western higher terrace is much denuded. We hope, however, that later we shall be able to explore it up to the edge of the modern high road. There is little hope, however, that anything of value will be found or that the clearing of this part will add much to our knowledge of its plan.

[5] Wace, *Mycenae* 16 f., pl. 2.

[6] LXXIV (1954), 170.

[7] *BSA* XLVIII 11, 12.

[8] *BSA* XLVIII 14.

[9] P. 239, PLATES 38 and 39.

[10] *BSA* XLVIII 5.

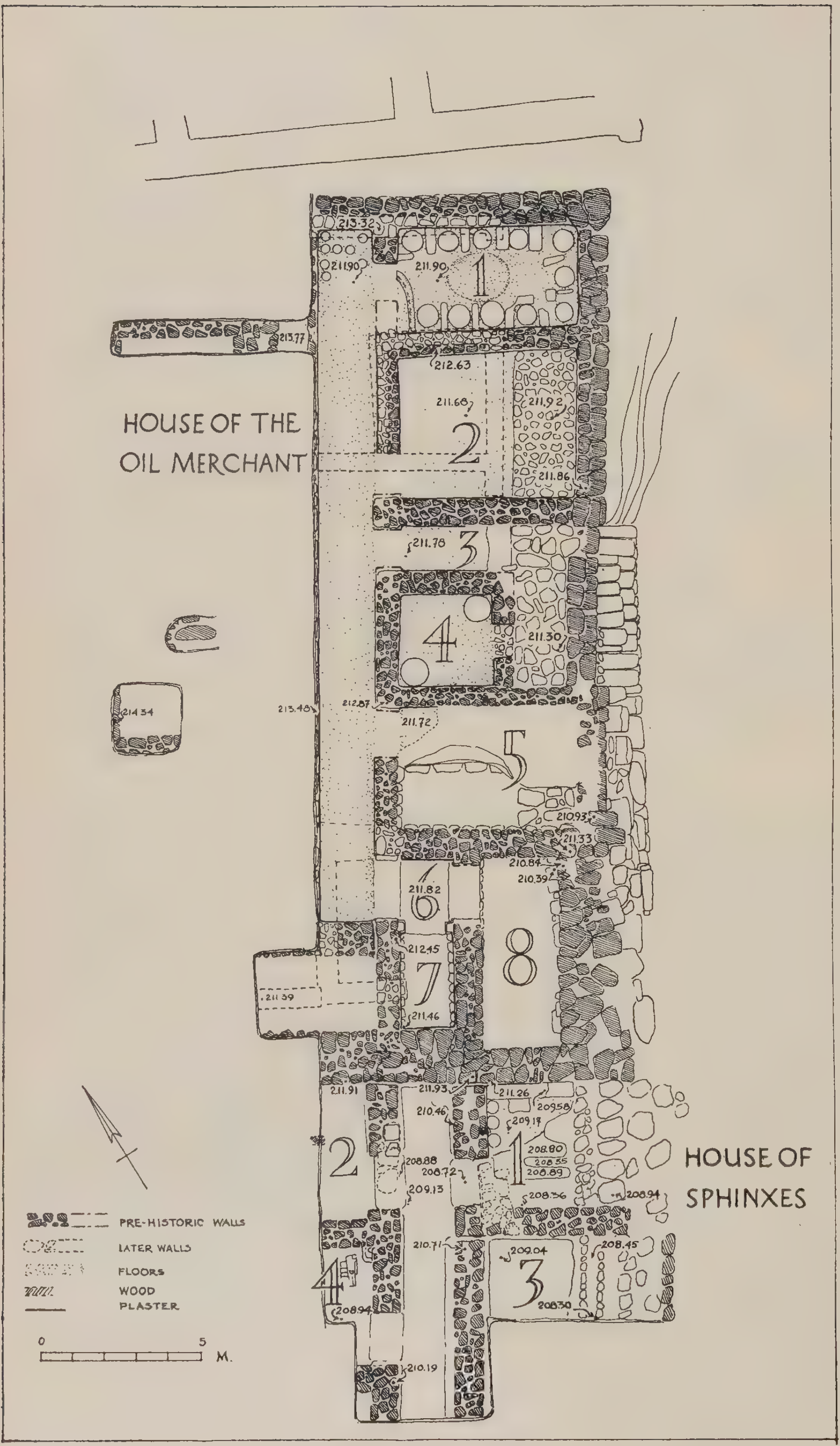

HOUSE OF THE OIL MERCHANT
HOUSE OF SPHINXES
1
2
3
4
5
6
7
8
1
2
3
4
213.32
211.90
211.90
213.77
212.63
211.68
211.92
211.86
211.78
211.30
214.34
213.48
212.87
211.72
210.93
211.33
210.84
210.39
211.82
212.45
211.39
211.46
211.91
211.93
211.26
209.58
210.46
209.17
208.80
208.55
208.89
208.88
208.72
209.13
208.36
208.94
210.71
209.04
208.45
208.94
208.30
210.19
PRE-HISTORIC WALLS
LATER WALLS
FLOORS
WOOD
PLASTER
0
5
M.

FIG. 2.—MYCENAE: HOUSE OF THE OIL MERCHANT, HOUSE OF SPHINXES, PLANS.

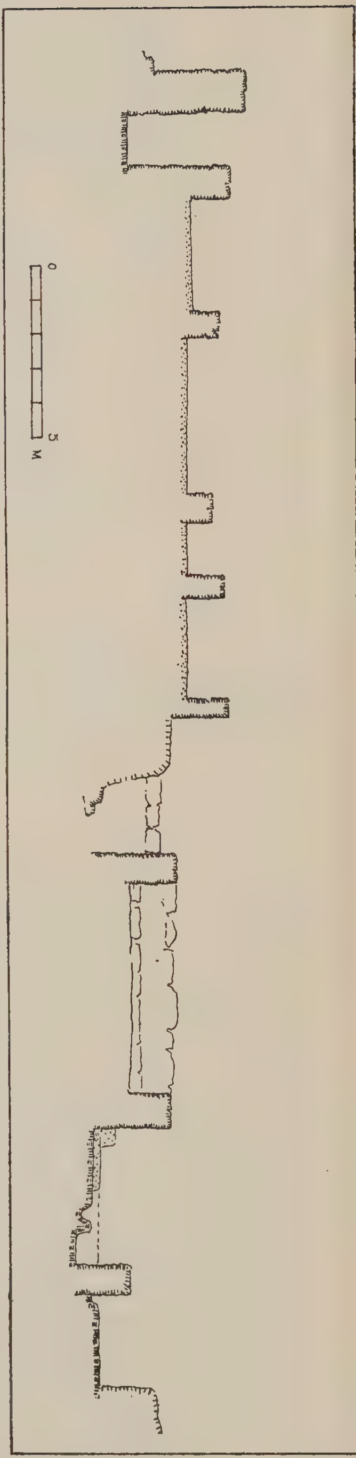


FIG. 3.—MYCENAE: HOUSE O
THE OIL MERCHANT, HOUS
OF SPHINXES, NORTH–SOUT
SECTION.

The House of Shields

This house rests on a wide terrace supported on the east by a massive terrace wall of large limestone blocks which runs northwards up the slope of the hill. On the south it is supported by a similar wall which runs westwards more or less parallel to the north terrace wall which supported the House of the Oil Merchant. Between the two houses, the House of the Oil Merchant and the House of Shields, runs a narrow passage varying in width from 1·00 m. to about 2·00 m. At its mouth on the east the walls on either side stand to a height of about 3·00 m., but this height diminishes as the passage runs westwards, for its rock floor rises naturally in irregular shelves. Since the House of Shields is to the north and higher, we may perhaps assume that it was built first. We cleared a space of about 4 m. wide in front of the face of the east wall to a depth varying from about 3·00 to 2·00 m. according to the upward slope of the rock from south to north. The rock here rises gradually to the north according to the slope of the ridge. The upper part of the earth here cleared away was dump from the excavation of the 'Tomb of Clytemnestra'. Below that, not much above the rock, was a much disturbed stratum with part of a north–south wall of uncertain date, many large fallen blocks and some miscellaneous Mycenaean (L.H. III) pottery mixed with Geometric and Hellenistic sherds. This agrees with the evidence found to the west of the House of Shields, where the ruins of a Hellenistic house with a cement floor partly overlie the west room of the house.

The House of Shields, so far as at present excavated, does not seem to be a basement house. The space enclosed by the Cyclopean walls supports a mass of gravel and earth well mixed with potsherds. The pottery found was nearly all of L.H. III date, and no pieces seem to be later than L.H. IIIB. This fill rests on the rock, and therefore decreases in depth according to the rise of rock from east to west. The area thus terraced is divided by a north–south wall into two rooms, an eastern and a western. The surface earth was shallow above the eastern room, and no trace of a floor has yet been recognised in this part. No objects have been found in it which we can confidently claim as having belonged to the contents of the house. Of the eastern room we have the south wall and the western and eastern walls, but so far we have not been able to determine its northern limit.

The same applies to the western room (PLATE 32, *d*). Here again we have the southern and eastern walls well defined. The south-west corner of the room is extant, but the western wall has been destroyed, though its foundations, consisting of large unhewn limestone blocks built roughly on a shelf on the edge of the rock which rises rather sharply to the west, have been identified. The wall was probably found in Hellenistic times and destroyed for the sake of the building material it afforded. Parts of the clay floor of the room were recognised, in particular a stretch which follows the inside line of the destroyed west wall. The floor gives us some indication of the ground level of the house which must have risen on this artificial terrace. Below the floor of this room we found, against the inside of the south wall, a proto-Geometric grave with two vases, published by Mr. Desborough in Part V, and, running from east to west, what resembles the dromos of a chamber tomb cut in the rock and 1·45 m. wide. As stated, the northern limit of this room has not yet been found, but a test made somewhat to the north of the east–west Hellenistic wall revealed on the east side of what are apparently the foundations of the northern continuation of the west wall a deposit of black earth containing fragments of carved ivories. All about this western room above the level of the floor of beaten clay we found a layer of black earth of varying thickness, but never more than 0·50 m. thick, which contained a great number of pieces of carved ivories, a number of stone vases, both complete and broken, and other small finds. They lay in no recognisable order, and it is impossible to say whether they belonged to this ground-floor room or whether they had fallen with other debris from a room on the floor above.

The ivories could be divided into several groups. There are small, flat, engraved plaques, of varying shape with an almost infinite number of designs, including most of the best known Mycenaean decorative patterns. Illustrations of these are given PLATE 33, *a*. We see here small plaques with argonauts, murex or whorl shells, strips for making borders, lilies, ivy leaves, dolphins, and cusp-like pieces which could be arranged as a border pattern, and numerous other small decorative pieces. All these seem to have been intended as inlays to be inserted in wood. The objects which they decorated were probably furniture, beds, chairs, tables, and perhaps large storage chests. Homer mentions ivory as being employed for the decoration of beds and chairs as well as of harness and weapons. Furniture so decorated might be considered as the Homeric counterpart of the furniture and chests of the Near East today which are adorned with inlay in mother-of-pearl. Chests were part of Homeric furniture. In the basement and in the storeroom of the house of Odysseus [11] there were chests for clothing and other textiles. Achilles seems to have had one in his tent.[12] Alkinoos packed the gifts for Odysseus in a decorated chest.[13]

Another group of ivories comprises plaques carved in relief, some high and some low, which were apparently often applied as ornament to small caskets and various objects. Among these are bands with the Mycenaean triglyph pattern, and many figure-of-eight shields of all sizes (PLATE 34).[14] Of the latter, some are still attached to part of a round ivory lid. There is also a set of four figure-of-eight shields in high relief on a band which, to judge by the holes at each end, was once attached to the side of a small casket (PLATE 34, *c*). Another plaque shows a figure-of-eight shield in high relief surrounded by a border of decorative leaves (PLATE 34, *b*). This may have been the lid of the same casket. In somewhat lower relief is a set of plaques with lions. There are pieces of three, possibly four, plaques showing running lions (PLATE 33, *c*) and part of a rectangular plaque which was originally in two pieces set together, one of which is now missing. This latter shows a lion attacking a calf by seizing it by the neck (PLATE 33, *b*). It is tempting to consider the four long narrow plaques with running lions as the sides of a casket and the rectangular plaque with the lion and calf as its lid. The carving of all the lions is excellent. They are drawn with strength, vigour, and fidelity. At the same time there is a delicacy and refinement about the actual carving and detail, especially in the heads and the manes, which is characteristic of Mycenaean art. The vivid observation of the lion pouncing on a calf is most naturalistic.[15] Its composition is similar to that of many Mycenaean gems. The central theme, with the lion's jaws fastening on the neck of the calf and with the treatment of the body of the calf disposed round in such a way as to fill the corners, is characteristically Mycenaean and typical of the manner in which subjects are arranged on engraved gems. It is interesting that the same formula of composition was employed both by gem engravers and by ivory carvers.

In high relief, too, is the head of a warrior wearing a boar's tusk helmet (PLATE 35, *b*, *c*). This is of the same type as that found at Spata [16] and those found by Tsountas in a tomb at Mycenae.[17] It represents slightly more than half a head. On the flat side there are two holes for pins to fasten it to an ivory or wooden backing. It is in remarkable condition, and much better preserved than those from Tsountas' tomb. Also in style it is superior to the Spata example. It gives a clear picture of the appearance of a boar's tusk helmet. The front view presents us with a vivid likeness of a Mycenaean warrior and of his actual physiognomy. This head, together with several flat plaques (PLATE 35, *e*) in sketchy style, showing warriors' heads wearing such helmets, shows that this was not uncommon as a Mycenaean decorative motive.[18]

---

[11] *Od.* II 339, XXI 51. [12] *Iliad* XVI 221. [13] *Od.* VIII 424, 438, XIII 10, 68.

[14] A set of figure-of-eight shields of various sizes might have decorated a sword scabbard or some similar tapering object on the model of the bronze sword from the Fourth Shaft Grave, Karo, *Schachtgräber*, pl. LXXXV 404; compare the box lid from Knossos, Evans, *Prehistoric Tombs* 44, fig. 41, and *PM* IV 301 f.

[15] Corbett, *Jungle Lore* 45, pl. 1. I owe this reference to Miss Florence Day.

[16] *BCH* II (1878), pl. XVIII. [17] *AE* 1888, pl. 8, no. 12 from Tomb 27.

In a test just to the north of this room, in an area which may have been part of it, we found a sherd from the rim of an L.H. IIIB vase showing a pattern composed of four boar's tusk helmets arranged like the petals of a flower (PLATE 35, *a*, *d*). The four helmets unite at their peaks to form the centre of the flower and the pendant chin straps below appear like parts of feathery petals. Such a flower-like arrangement of decorative motives is not uncommon in Mycenaean art. Murex shells, for instance, often occur in such a scheme.[19]

Near the south wall of this western room we found a clay tablet inscribed in the Linear B Mycenaean script. It is a tablet of the long, narrow type similar to some of those found in Room 2 of the House of the Oil Merchant.[20] It is baked hard by the fire which destroyed the house, and it is hoped that with the excavation of the rest of the house more tablets may yet be discovered in it.

In the same deposit were found several fragments of vases of faience (PLATE 36, *a*). Some seem to belong to an open bowl with a fairly high foot. The surface is much damaged, but the faience seems to have been of a pale greenish yellow colour with shallow engraved lines. Other small pieces are polychrome. Two show the head of a griffin in blue, and the head and part of the body of a lion in yellow: yet another a handle decorated with red, blue and yellow. From its appearance the faience does not seem to be Egyptian, but to be more probably of Syrian or Phoenician fabric. Also with the faience was part of an alabaster vase. This is presumably of Egyptian fabric, for the material is almost certainly Egyptian. It was of the ' baggy ' shape well known in the XVIIIth Dynasty. An alabaster vase of this type was found in the tholos tomb at the Argive Heraion.[21] Others have been found at Vaphio and Knossos.[22] Most so far seem to have been found in L.H. II or L.M. II contexts. This vase belongs to a L.H. IIIB context, but there is no reason why we should not consider it as of late XVIIIth Dynasty date.

Together with the carved ivories we found in this western room three complete stone vases of serpentine (PLATE 36, *c*), two more or less complete restored from fragments and a number of pieces of others. Two vases have their lids, and one of the fragments has, close to the rim, two silver studs which indicate that this vase probably had had a silver lid. The vases were made by drilling with a hollow reed drill, and the traces of the process are clearly visible in one of the vases which has its neck and body in separate pieces. It was necessary to make the neck and body separately, because it would have been impossible to drill out the body through the narrow opening of the neck. Another fragment of a vase in whitish stone has shallow sinkings drilled in its surface for the reception of decorative inlays, and some pieces of such inlay in crystal and variegated stone were found near it (PLATE 36, *b*). This fragment is part of the same deposit and, like it, to be dated to L.H. IIIB.

---

[18] Miss Lamb has collected the best known examples, *BSA* XXV 225. Evans' argument (*PM* IV 868 ff.) that the boar's tusk helmet is Cretan is unconvincing.

[19] Wace, *Chamber Tombs* 17, fig. 8 *d*; Furumark, *Mycenaean Pottery*, fig. 51. Compare the lion heads on the ivory pommel from Shaft Grave IV, Karo, *Schachtgräber*, pl. LXXVII.

[20] Bennett, *ProcAmPhilSoc* vol. 97 (1953), 422 ff.

[21] *BSA* XXV 336 (59).

[22] Fimmen, *Kretisch-Mykenische Kultur* 174.

NOTE: STONE BOWLS

Evans [23] uses the fragments of stone vases with shallow sinkings drilled on the surface for the insertion of inlays, which Stamatakes found in clearing the dromos of the Treasury of Atreus, as evidence for dating that tomb to a period contemporary with M.M. III, in other words to the latter part of the Middle Helladic period. The fragments of stone vases from Stamatakes' excavation are as follows: [24]

1. Steatite vase, of the same material as the stone medallion pithoi from the 'Tomb of Clytemnestra'. There are nine pieces in all, including three pieces from the edge of the base and one of the lid. Evans' restoration [25] is wrong, for he puts one of the pieces of the base as a part of the rim at the top. Three of the pieces have been joined.
2. Stone vase of variegated stone with shallow drillings of 'trefoil' shape for inlay. One piece.
3. Stone vase of variegated stone with shallow 'trefoil' drillings for inlay, similar to No. 2 but rather larger. One of these pieces [26] Evans restores as a bull's head rhyton, but there is no indication of the real shape of either piece.
4. Large vessel of grey stone, one piece.

5–8. Four pieces of stone vases all different. All small.

9, 10. Two pieces of worked grey black stone.

Evans says that the material of Nos. 2 and 3 is Cretan and was popular for stone vases in M.M. I, and that it was imitated in the polychrome pottery of that period. On the other hand, he says that the use of less hard materials such as steatite, the material of No. 1, is characteristic of the L.M. period. The Knossian evidence for dating these examples from Mycenae is thus too weak to have any real value. As Pendlebury [27] has pointed out, stone vases are naturally long lived, and cannot therefore be considered as having decisive value for dating. On the other hand, the group of stone vases complete and fragmentary from the House of Shields, found in a clear L.H. IIIB context, shows that the fragments found by Stamatakes in the dromos of the 'Treasury of Atreus' cannot be held to date that tomb definitely to the M.H. period. Its construction is quite out of keeping with what we know of M.H. architecture from elsewhere at Mycenae and from other sites. Further, the evidence of the pottery found in the rock cleft cut through by the dromos dates the construction of the tomb and its dromos as subsequent to the development of L.H. IIIA and before the *floruit* of L.H. IIIB. [28] Had anyone but Sir Arthur Evans proposed a Middle Helladic date for such a building it would have been at once dismissed as fantastic. As it is, the dating of the tomb to the end of L.H. IIIA or to the transition before the beginning of L.H. IIIB, in other words to the close of the Amarna age, fits admirably with what we know from other discoveries at Mycenae and elsewhere about the evolution of Mycenaean art and architecture.

The House of Sphinxes

In 1952 in clearing the south wall of the House of the Oil Merchant we found outside it to the south and at a lower level a storeroom which contained a great quantity of vases, mostly undecorated drinking cups. Two large undecorated vases of coarse ware were found standing more or less *in situ* in the centre of the room, and above one of them was found a small ivory plaque carved with a couchant sphinx.[29] This year, 1953, we planned to excavate a large area along the south wall of the Oil Merchant's House in order to see whether this storeroom was an annex of the Oil Merchant's House or part of the basement of another and separate house to the south. We found that this room was in fact part of the basement of another house which must be later in date than the House of the Oil Merchant, for its walls abut on the outside of the southern wall of the Oil Merchant's House. The main terrace wall, which on the east supports the Oil Merchant's House, is set outwards slightly at the point of the junction of the two houses, and then continued on this new line in a south-westward direction to form a massive supporting wall for this other house, which in view of the discoveries made within it we have named the House of Sphinxes (see plan FIG. 2). We were not able to define the full extent of this other house, and so far have excavated only the northern part of its basement. On the west it runs against the hillside, but we have not yet been able to find its limit in this direction. It probably extends considerably farther to the south, and we hope to be able to excavate the southern part of it next season.

The House of the Oil Merchant stands on fill held up by the Cyclopean terrace wall on the east. The House of the Sphinxes, on the other hand, is built directly on the rock. An area of the rocky hillside was roughly levelled off, and against its eastern edge the Cyclopean terrace wall was founded on a lower shelf of rock. The space between the rock floor of the basement of the house and the inside of the Cyclopean terrace wall was filled with large stones packed with clay. In the rock floor of the terrace thus made on the hillside shallow trenches (about 0·30 m. deep and 1·00 m. wide) were cut. In these the dry stone walls were constructed. The shallow trenches were cut across the doorways also, and in them the wooden thresholds were laid. We not only found in the threshold trenches much black ash, obviously the remains of carbonised wood, but at the north end of the threshold to Room 2 we found still embedded in the wall the charred end of a wooden beam (PLATE 32, *a*). In the threshold cutting of Room 4 we found the setting for a similar beam. This, of course, agrees well with the Homeric evidence, for in the Odyssey we have many references to thresholds of oak or ash.[30] The basement as so far cleared consists of a long corridor running north and south. From this separate rooms branch off to east and west, see the plan FIG. 2 and PLATE 32, *c*. The floors and walls of the rooms and corridor are all with one exception unplastered, but in the north-east room (Room 1) the walls were plastered, and apparently also the floor. The plaster is of clay well mixed with chaff, and it extends half-way through the depth of the doorway to the corridor (PLATE 32, *b*). For some distance along the north wall of this room a clay shelf extends for about 2 m. from the north-west corner. On and before this lay a number of the curious triangular bars of clay mentioned in last year's report.[31] Against the west wall lie three round flat discs of similar clay. These can all be seen in the photograph, PLATE 32, *b*. The room was full of broken vases. In addition to the large jars of plain coarse clay found in 1952 in the centre of the room, there was a great mass of coarse domestic and kitchen pottery along the north wall mixed with many painted vases of L.H. IIIB style. A mug and some examples of piriform jars are shown in PLATE 31, *b*, *c*. Along the south side were innumerable fragments of undecorated drinking cups, kylikes, and shallow bowls. As stated, there was much wood ash. Perhaps the vases had been arranged on wooden shelves in the room. The domestic ware included three-legged cooking-pots, ladles, lids, and funnels of an unusual shape (PLATE 37). Apparently too the room had been specially closed. In the doorway from the corridor we found seven clay seal impressions (PLATE 38, *b*). These are of the usual shape, triangular in section, and were pinched with the fingers around strings.[32] The impressions are all from the same signet, which shows a man standing between two wild goats. On the back of each impression there are inscriptions in the Linear B Mycenaean script. In one case the inscription was too long for the back, and the final sign is incised on the front over the seal impression. Perhaps these impressions had been used to seal strings or cords fastening the door of the room, and perhaps too the inscriptions are the signatures or names of seven witnesses to the sealing up of this storeroom.

---

[23] *PM* IV 233 ff.

[24] *BSA* XXV 353 (I 82). The additional pieces were found by Dr. Mitsos at the Treasury of Atreus and included with Stamatakes' pieces. This list was made during the evacuation of the Museum in 1940–41.

[25] *PM* IV 234, fig. 178.

[26] *PM* IV 235, figs. 180, 181.

[27] *Archaeology of Crete*, xxvi, 54, 227.

[28] Wace, *Mycenae* 127 ff.

[29] *BSA* XLVIII, pl. 9 *c*.

In this room we found in addition to the vases many carved ivories. Among them were fragments of three more plaques with couchant sphinxes (PLATE 39, *c*), similar to that found in 1952.[33] These perhaps had adorned the four sides of a small wooden casket. In the north-west (2) and south-west (4) rooms, and also at the north end of the corridor, were found many other carved ivories. These include quantities of small flat ivory inlays carved in the same sketchy style as those from the House of Shields, and the favourite Mycenaean decorative patterns are represented. There are strips which must have formed borders. There are ivy leaves, lilies, argonauts, birds, flame ornaments, cusps, and several others. Among ornaments in the round or half-round are cockle-shells (PLATE 39, *b*), and domino-like objects (FIG. 4). Most striking are plaques in low relief. Two of these represent the well-known Mycenaean lotus and spiral pattern (PLATE 38, *a*) as seen in the ceiling of the side chamber of the Orchomenos tholos tomb [34] and in wall paintings from the Palace at Mycenae [35] and from other sites. One of these as restored from fragments must have been at least 0·70 m. long. Since they have holes for the insertion of ivory pegs (of which a considerable number were found), these plaques probably decorated furniture, chairs, beds, chests, and perhaps tables. In spite of the low relief, the delicacy and accuracy of the carving are excellent. Another plaque, unfortunately in a fragmentary condition, displays a series of friezes of argonauts (PLATE 39, *a*) arranged in parallel rows which apparently covered a considerable space. The design of the argonauts sailing along in single file with their tentacles spread is most attractive, and the carving is executed with realism and refinement.

---

[30] *Cf.* the South House, *BSA* XXV 88; see Homer, *Od.* XVII 339, XXI 43.

[31] *BSA* XLVIII 14.

[32] Bennett, *ProcAmPhilSoc* vol. 97 (1953), pl. 14 (12), 424.

[33] *BSA* XLVIII 14, pl. 9*c*.

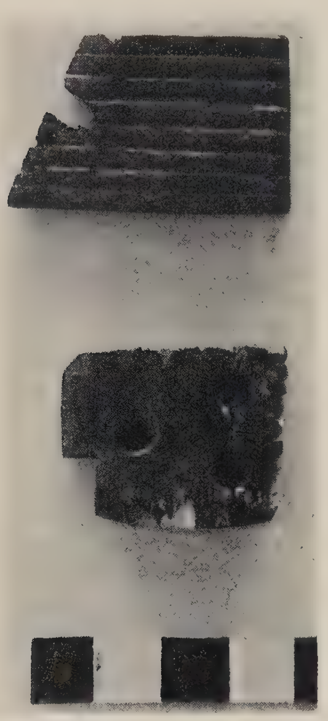


FIG. 4.—MYCENAE: HOUSE OF SPHINXES, 'DOMINOES' IN IVORY.

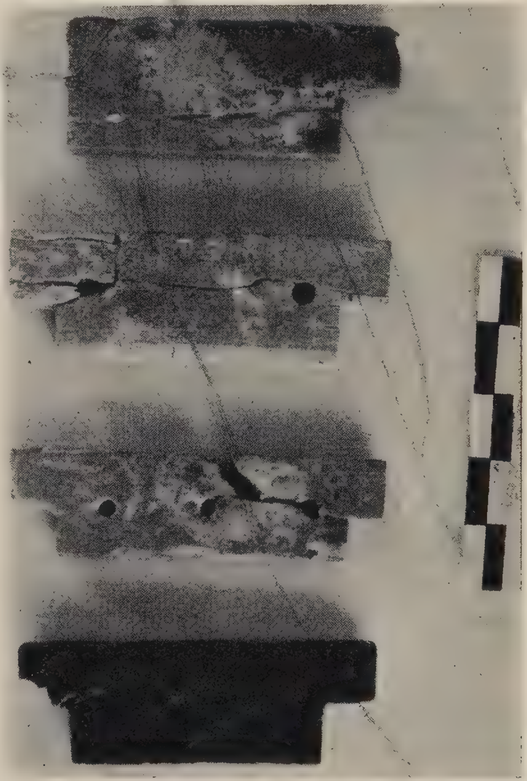


FIG. 5.—MYCENAE: HOUSE OF SPHINXES, RECTANGULAR BLOCKS IN IVORY.

The finest plaque of all, which was found in Room 2, represents a pair of sphinxes (PLATE 38, *a*) in an attitude similar to that of the lions in the Lion Gate relief. They are in profile and confront one another. They wear lily crowns from which plumes stream out backwards. They wear elaborate necklaces. The details of their wings and of the spirals which mark the junction of wing and shoulder are admirably carved. The bodies and legs are firm, strong, and beautifully proportioned. The forefeet rest on the capital of a fluted column. The hind feet rest on a platform which stands above three sets of the 'Horns of Consecration' at a slightly lower level than the column capital. This plaque, from the superb skill of its design and of its execution, ranks as one of the finest Mycenaean carved ivories so far known. Its subject, the confronted sphinxes, is also unique so far in Mycenaean art, but it has, of course, many parallels in its composition, and it is not necessary to refer to any other than the relief of the Lion Gate. Whether any religious or symbolic significance attaches to sphinxes in this attitude in connection with a column remains for later discussion. Since this plaque was found in Room 2 and the other sphinx plaques in Room 1, we can hardly connect them, although it would be tempting to imagine that this had adorned the lid of a casket of which the other sphinx plaques formed the sides.

---

[34] Bossert, *Alt Kreta*², pl. 206.

[35] *BSA* XXV 109, pl. XXIX; Rodenwaldt, *Tiryns* II 47 ff., 175 ff.

The Two Houses, Similarities and Differences

It is interesting to note the differences between the ivories found in the House of Shields and the House of Sphinxes. In the former house there were numbers of figure-of-eight shields, and dolphins among the ivories. In the House of Sphinxes we found sphinxes, birds, cockle-shells, and ' dominoes ', but only one figure-of-eight shield. Similarly in the House of Shields stone vases complete or fragmentary were not unusual. In the House of Sphinxes we found the handles of one or two stone vases and the broken lid of another, but no large pieces and no complete stone vases. Presumably the stone vases, like the ivories, had belonged to the furnishing of the rooms on the floors above and fallen into the basement or lower floor when the building was burnt and collapsed. In Room 3 of the House of Sphinxes were many pieces of cement flooring which had fallen with the debris from above. The lines in the burnt debris (which is about 2 m. deep) in the west side of the excavation of Room 2 of the House of Sphinxes show clearly that the house had at least one story above the basement, and perhaps there was yet a second story. Above Rooms 2 and 4 many remains of burnt crude brick were found which show that, as usual, the upper walls were of unbaked brick supported by timber framework.

From both the houses there were quantities of model columns in ivory (PLATE 40), over sixty in all. There are columns of the ordinary or Lion Gate type, fluted columns with capitals of the ' Pergamene ' type, spiral columns, and one broken example in wood with the chevron pattern of the columns of the Treasury of Atreus. Some of the columns, especially those of the ordinary type, are semi-columns and were attached to a background by ivory pegs. Most of the others are in the round, and several have detachable capitals. The fluted columns have twenty-six flutes like the engaged gypsum columns of the ' Tomb of Clytemnestra '. This, with a similar model column in ivory found by Tsountas in a tomb at Mycenae [36] shows that fluted columns were a feature of Mycenaean architecture. Fluted columns existed in the Palace at Pylos and also in the Little Palace at Knossos, which is of L.M. II date, the period of Mainland influence at Knossos. It will be observed also that the column on which the sphinxes of the sphinx plaque plant their forefeet is a fluted column of the same type. So we see that the fluted columns of classical Greece have a long ancestry far back in pre-classical Greece.

Together with the columns were other possible architectural models. There are several pieces showing the Mycenaean triglyph pattern and one with a checker pattern which recalls some of the architectural frescoes.[37] There are also a number of rectangular pieces of ivory with sockets and tenons (FIG. 5). These all have the appearance of being part of a model building set such as might be given to a child as a toy. Is it conceivable that they were intended to be used in the construction of architectural models? This idea is strengthened by the fact that the capitals of many of the ivory model columns are removable. In any case these architectural models, whether used as applied ornament or as true models are most interesting and important, and must be studied in detail.

[36] *AE* 1888, pl. 8, 8. [37] *BSA* XXV, pls. XLII, XLIII; Bossert, *Alt Kreta*², pls. 220, 221.

An ivory of peculiar form, of which examples of varying size were found in both houses, appears in PLATES 36, *d*; 39, *b*. These almost seem as if they were the feet of cabriole chair legs. The sides taper upwards, but not symmetrically. At the top they are sawn downwards into eight ‘ blades ’ which are triangular in section and naturally are thinner at the top than at the base. In most cases the ‘ blades ’, being fragile, are broken, but their shapes and the process by which they were sawn is clear. The saw employed must have been thin, almost like a fret saw, for the divisions between the blades are narrow. The whole in form looks rather like a model of the foot of a large quadruped adapted as a support for something. There is no indication, however, as to what was inserted between the blades, which are in most cases all snapped off at the same level. So far we have no clue to the real purpose of these objects. The ‘ blades ’ are too fragile to be inserted into wood or some other comparatively hard substance. Four examples of this were found in the Menidi tomb,[38] but so far no one has offered any completely satisfactory explanation of their purpose. Perhaps further research will solve the puzzle or some lucky discovery reveal the use of these mysterious objects.

There is no definite evidence that any of the ivories were stained or coloured as indicated by Homer [39] in the famous simile. One small piece from the House of Shields which has not suffered from fire does indeed show on its surface a touch of reddish purple. Perhaps some of the ivories much affected by fire were coloured also. Perhaps even the intense blackness of many pieces, such as the lion plaques, is due to their having been coloured or stained. This, however, is a matter for further research, and perhaps a chemical analysis may yield definite evidence.

The ivory presumably came from Syria, where the elephant [40] then flourished, and there is another sign of trade with the Syrian or Phoenician coast in the presence in the House of Shields of the fragments of faience vessels which do not appear to be of Egyptian origin.

General Comment

The existence of these three large houses well away from any protection which the Cyclopean walls of the citadel could have afforded suggests that at the time when they flourished Mycenae was not only prosperous and powerful but also enjoying a period of profound peace. The houses are private houses, and from their size and equipment would presumably have belonged to nobles or merchants. It stands to reason that no one would have dared to build so large and so rich a house as any one of these outside the citadel walls unless he and his possessions could enjoy peace and safety. We can assume therefore that at this time Mycenae was in no danger of attack by either land or sea. It has often been said and repeated in text-books that we must draw a distinction between the undefended palaces of Crete and the great fortress palaces of the Mainland. The former, it is said, indicate that the wealthy rulers of Crete needed no fortifications because Crete was powerful and flourished under the protection of a strong fleet. On the other hand, we are told that the Mycenaean fortified palaces indicate that their rulers lived with the constant threat of invasion by ‘ Dorians ’, or of overseas raids by pirates. Now in view of the evidence of these houses this idea must be modified. The houses at Mycenae are just as much undefended as the palace of Knossos and *mutatis mutandis* just as richly equipped. The facile assumptions which are now text-book commonplaces must be discarded, and the question must be reconsidered in the light of the most recent discoveries.

---

[38] (Lolling), *Kuppelgrab bei Menidi*, pl. VI 12; Staïs, *Coll. Myc.*^{2} 169 (1982). Only four are mentioned in the publication, but, as Staïs says, there are ten from this tomb in the National Museum at Athens.

[39] *Iliad* IV 142. Several of the Pratt ivories from Syria in the Metropolitan Museum are decorated with colour and gold, *BullMetrMus* XXXI (1936), 221 ff. I owe this reference to Mr. C. K. Wilkinson.

[40] Barnett, *PEFQ* 1939, 4 ff.

There is yet another point concerning these houses which has an important bearing on our ideas of Mycenaean civilisation. We have here a row of three large and wealthy private houses, and in each one of them inscriptions in the Linear B Mycenaean Script have been found. The tablets from the House of the Oil Merchant found in 1952 seem to be written by no less than six hands.[41] All this indicates that writing and reading were much commoner than we have hitherto been inclined to believe. This can be confirmed by the painted inscriptions on stirrup vases from Mycenae itself, Tiryns, Thebes, Eleusis, and Orchomenos, for such inscriptions on large stirrup vases were presumably intended to be read by the men who handled the vases, and they are hardly likely to have been nobles or merchants, but at best foremen or stewards.[42] We thus obtain a more extensive idea of the literacy of the Mycenaeans, and it is hard to believe that when the Mycenaeans had reached so comparatively high a standard of literacy they should have ceased entirely to read and write after the end of the Bronze Age and before the adoption of the Phoenician alphabet. For the beginning of the Iron Age, the Sub-Mycenaean, Proto-Geometric, and earliest Geometric stages our principal evidence comes from tombs. Inscriptions are rarely found in tombs even in the height of the classical period. No inhabited sites of the beginning of the Iron Age have yet been excavated or even discovered. If it were possible to excavate a good inhabited site of that date much of importance would undoubtedly come to light, and it is not inconceivable that inscriptions of some kind might be found. Sanctuaries and shrines of that period are also practically unknown. Thus the evidence for or against literacy after the Bronze Age is non-existent, because really, except for tombs, we have practically no archaeological material. It has been suggested that the use of a script like the Linear B might have continued into the early Iron Age and perhaps even have overlapped with the earliest use of the Phoenician alphabet in Greece, just as the Cypriot syllabary and the Greek alphabet overlapped in historical Cyprus. For the sake of our knowledge of early classical Greece the discovery and excavation of an inhabited early Iron Age site in Greece is urgently necessary.

A. J. B. Wace

[41] Bennett, *ProcAmPhilSoc* vol. 97, 441 ff.

[42] It has even been suggested that it was a script devised for accountancy only.

MYCENAE 1939–1953

PART II. THE GRAVE CIRCLE

(PLATE 41)

In 1950 and 1952, in view of recent discussions about the date of the Grave Circle,[1] we decided to make some fresh soundings in its supporting wall to see if any fresh evidence could be obtained. In the first year the work was confined to soundings in the battered supporting wall on the south side opposite the north-east corner of the House of the Warrior Vase, and was undertaken by Mr. Kenneth Rowe. In 1952 further soundings were made in the battered supporting wall, the wall at its base on the west [2] was further examined, and a sectional cut was made across the double ring of standing slabs on the north-east side about midway between the entrance and the then surviving cover slabs.[3] The work was then directed by Dr. F. H. Stubbings.

At the time of Schliemann's excavations the western part of the double ring of vertical poros slabs of the Grave Circle, which rests on the battered supporting wall, was in a very ruinous condition. This can be seen clearly in Schliemann's illustration and in the photographs published later.[4] After the close of Schliemann's and Stamatakes' excavations the supporting wall was restored both on the west and on the south, and the western half of the double ring of standing slabs was reconstructed. When Keramopoullos [5] excavated the fallen rock in the centre of the circle the Greek Archaeological Service undertook some further work of conservation. When our work at Mycenae began in 1920 we carefully probed the circle. We tested the unrestored parts of the battered supporting wall and examined the wall at its western foot (63). We cleared the north-eastern sector of the circle of standing slabs as far as we could with safety and dug out some of the earth between the slabs at the southern end of the cover slabs still *in situ*, and traced the row of flat slabs which run as a kind of pavement against the inside of the ring of vertical slabs. The plan then made, and the photographs then taken give a general idea of its condition at that date.[6] In the succeeding years, weather and even more the increasing numbers of visitors have caused much damage to the Grave Circle.[7] In 1952 the Greek Archaeological Service undertook some badly needed work of conservation. The vertical slabs of the entrance, which were in danger of falling, and also the vertical slabs still *in situ* along the eastern side were set upright. In the course of this work the remaining cover slabs,[8] which were badly broken, were removed. The western side of the double circle of vertical slabs was again reconstructed.

In view of all this recent work and of the various theories now in circulation about the date

---

[1] Throughout this article, see the plan and sections in *BSA* XXV, pls. I, XVII.

[2] *BSA* XXV, pl. I (63); Wace, *Mycenae*, pl. 3 (63).

[3] See *BSA* XXV, pl. I (64); Wace, *Mycenae*, pl. 3 (64).

[4] *Mycenae*, pl. VII; *Ant.Denkmäler* II, pls. 46, 47.

[5] *AE* 1918, 52 ff.

[6] *BSA* XXV, pls. I, XV, 103 ff.

[7] The large parties of visitors of all nationalities do much damage to the monuments of Mycenae, for they are under no adequate guidance and are apt to clamber about the walls in search of views or suitable spots for photography. This dislodges the loosely packed stones of the prehistoric walls, which then fall into ruin. Further, the constant passing of large bodies of visitors has worn away the poros treads of the grand staircase of the palace and some of the poros foundations of the temple. The preservation of excavated ruins is one of the great problems now before the Greek Archaeological Service and all excavators in Greece. It is a question not of restoration, but of preservation.

[8] *BSA* XXV, pl. I (64); Wace, *Mycenae*, pl. 3 (64).

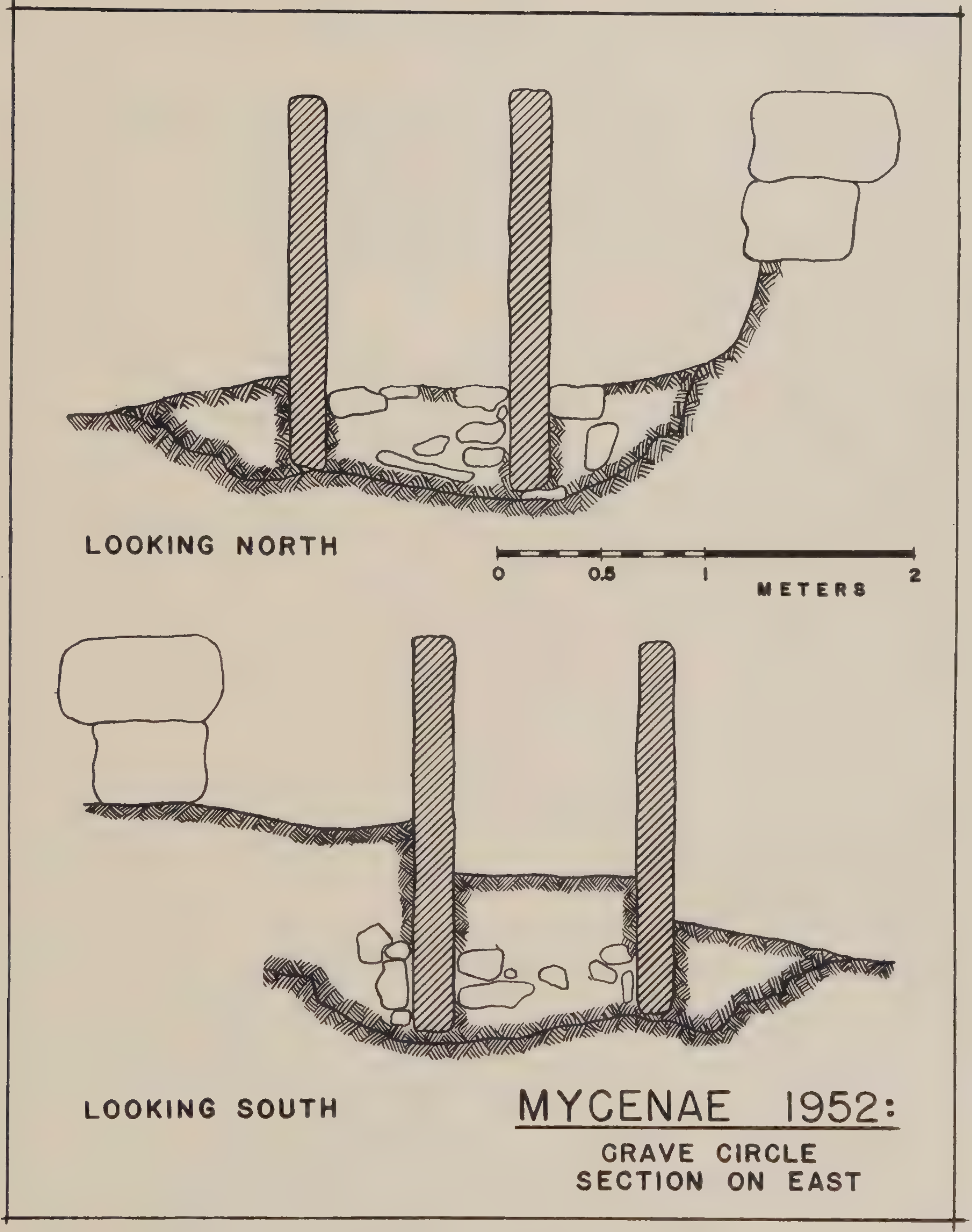

LOOKING NORTH
0
0.5
1
2
METERS
LOOKING SOUTH
MYCENAE 1952:
GRAVE CIRCLE
SECTION ON EAST

Fig. 6.—Mycenae: Grave Circle, Sections.

of the Grave Circle it has been thought advisable to publish here a brief statement of the results of our probing, especially since the stratigraphic evidence of our earlier work, grouped in the Nauplia Museum, was destroyed during the war, when the Museum and its storerooms were evacuated.

In our first examination of the Grave Circle in 1920 we devoted much attention to the low, curving wall at the foot of the battered supporting wall on the west,[9] and then we found no pottery other than L.H. III in or about this wall.[10] In 1952 this curving wall was cleared of the debris which had accumulated since the 1920 excavations, together with the adjacent parts of the battered wall, and a careful fresh study was made of their interrelation. The wall numbered (63) on the plan is only two courses high, forming at the base of the battered wall a sort of step, narrowing towards the south until its vertical west face merges with the face of the supporting wall.

The two courses of stone forming this step in fact continue without a break beyond the point of junction, and their continuation forms the two lowest courses of the supporting wall. Above them are two or three more vertical courses before the batter begins. Where the ‘ step ’ projects, however, the batter begins immediately above it. There is no visible difference in material or construction between the lowest, vertical-faced courses and the battered courses; they form in fact a single structure. It looks as though there had been some minor change of plan in the line of the supporting wall after the first few courses were built, leaving a projecting step (as described) at the foot of the affected part. The reason for the change is not clear. The resultant untidiness would hardly be noticeable from above; and if it was, it could easily have been covered over.

Tests dug horizontally into the wall, between the stones, at points in both the vertical and the battered faces produced sherds (presumably there since the building of the wall) of M.H. (Minyan and Matt-painted) and L.H. III style, none later than L.H. IIIB (PLATE 41). So did tests between the stones of the projecting ‘ step ’. If any conclusion can be drawn from these tests it would be that the walling examined was all of one date, most probably L.H. IIIB. As noted in 1920,[11] the pottery from this supporting wall compares well with the pottery from the earlier strata of the Lion Gate section.[12] In the earlier publication of those results it was stated that that pottery was of the Amarna period, and therefore to be placed early in the L.H. III period. Further study, however, has shown that it does not belong to the first or A stage of L.H. III pottery, but to the beginning of the second or B stage, which immediately succeeds the Amarna period.[13]

In addition to this re-examination of the supporting wall of the Grave Circle and the wall at its western foot we cut a section across the double ring of vertical slabs about midway between the eastern side of the entrance and the northernmost cover slab then still *in situ*. As in the case of the section cut farther to the south-east in 1920 [14] the vertical slabs proved to be bedded on the rock as seen in the section in FIG. 6. Against the bottoms of the vertical slabs and between them where they are set on the rock were found a few sherds of E.H. and M.H. pottery with one sherd of L.H. This confirms the evidence of the 1920 tests, and implies that the double ring of vertical slabs was set in a Middle Helladic stratum. This double ring is dated by the pottery found in the retaining wall on the west, which as we have seen is of good L.H. IIIB style. There is thus no evidence to suggest that the double ring of vertical slabs was erected in M.H. or even in L.H. I times. In other words it is not contemporaneous with the

---

[9] *BSA* XXV, pl. I (63); Wace, *Mycenae*, pl. 3 (63).

[10] *BSA* XXV 108.

[11] *BSA* XXV 108.

[12] *BSA* XXV 109.

[13] *BSA* XLVIII 15, n. 22; *ProcAmPhilSoc* vol. 97, 424.

[14] *BSA* XXV 110 f., pl. XVI b.

Shaft Graves but a later construction to protect them and enclose them as a *temenos*. Whether there was any kind of an enclosure here when the first Shaft Graves were dug must remain an open question. We must remember, however, that the Grave Circle enclosed at least twelve tombs, more than is usually assumed. Schliemann found five Shaft Graves, Stamatakes found one more, the Sixth Grave, and four in the eastern part of the Circle. In addition, Schliemann found two or more graves on the sloping rock to the east of the Third Shaft Grave. These contained small Middle Helladic vases, and so probably resembled one or two of the small graves found by Dr. Papademetriou in the north-western sector of the recently discovered Middle Helladic Grave Circle. This would give a total of at least twelve graves in the Grave Circle.[15] There may even have been more, for in the National Museum at Athens there are two [16] small matt-painted M.H. vases ' found outside the Shaft Graves ' which are unbroken and look as if they had come from a tomb or tombs. It is unfortunate that Schliemann did not record the graves he found east of the Third Shaft Grave and that Stamatakes was never able to publish any account either of the graves he found in the eastern part of the circle or of their contents. At all events we must recognize that it is erroneous to think of Schliemann's Grave Circle as having enclosed only the six Shaft Graves. The small graves with Middle Helladic vases were presumably of the later Middle Helladic period, and so must not long antedate the Second and Sixth Shaft Graves, which are probably the two earliest of the series.

Even though the enclosing wall of the Grave Circle in its present condition does not go back to the Middle Helladic period, it is not, however, impossible that there was some kind of enclosure round this group of graves which was swept away on the complete reconstruction of the area as a sacred *temenos*, when the Lion Gate and adjoining parts of the Cyclopean Walls and the Ramp were built, soon after the end of the Late Helladic IIIA phase at the close of the Amarna age.

A. J. B. Wace
F. H. Stubbings

Note

Furumark believes that the ' panel style ' of decoration of L.H. III pottery did not begin until the L.H. IIIB stage. I have long believed that some of the existing examples of the ' panel style ', such as the fragment from under the threshold of the ' Treasury of Atreus ' [17] and the splendid deep bowl [18] from the second stratum by the Lion Gate, were to be dated earlier than the majority of the examples of the ' panel style ' on account of their excellent style and fabric. I had therefore wished to place them in L.H. IIIA, but if L.H. IIIB, as now suggested, is held to begin at the end of the Amarna age about 1340 B.C.,[19] then these and similar specimens of the ' panel style ' can be considered as being some of the first examples of its reemergence in L.H. IIIB. I have pointed out elsewhere [20] that the panel method of composition does not originate in L.H. III, but can be traced back to Middle Helladic times, and I have suggested that it reached its fullest development in Geometric pottery.

A. J. B. W.

---

[15] Wace, *Mycenae* 60.

[16] Nos. 1110, 1305, unpublished; Wace, *Mycenae* 61, n. 5.

[17] *BSA* XXV 357, fig. 76 *a* = Wace, *Mycenae*, pl. 44 *a* (*a*).

[18] *BSA* XXV, pl. V *e*; Wace, *Mycenae*, pl. 76 *b*.

[19] *BSA* XLVIII 15, n. 22.

[20] 'Επιτύμβιον Χρήστου Τσούντα 348, 350.

MYCENAE 1939–1953

PART III. A POSSIBLE MIDDLE HELLADIC FORTIFICATION WALL

(PLATE 42)

Schliemann on his plan [1] of the acropolis of Mycenae marks a terrace wall on the north-west corner of the 'summit'. Steffen on his plan [2] of the acropolis marks the same wall as one of his '*kyklopische Stutz- u. Abschnittsmauern*'. Dr. Leicester Holland included the wall in his plan [3] of the palace made during our excavations there in 1920–23. Then we thought that this wall was a terrace wall which supported the end of the inclined roadway which climbed the Citadel from the Ramp to the north-west Propylon (9) of the Palace with its paved forecourt (7).

In 1939 in excavating the rock shelf to the east of the Guardroom (3, 4) and below the terrace wall which supports the temple foundations on the north, we found a much ruined wall (FIG. 7, Z) on the very edge of the rock shelf, which here drops abruptly to the north. This wall was associated with a Middle Helladic deposit. Above this lay a somewhat disturbed Late Helladic stratum where the splendid ivory group of two women and a boy was discovered.[4] The wall is a packed construction of largish stones about 1·25 m. thick, and the deposit behind it rests in a hollow in the rock and was at most 1·25 m. deep. In this was a stratum of black earth which was full of Middle Helladic pottery belonging to a late rather than to an early stage in that period. The wall in its ruined state is now not more than two or three courses high. In view of its position on the very edge of the steep rock it was suggested that it was probably the remains of a Middle Helladic fortification wall which had once surrounded the summit of the acropolis. It can easily be seen from a study of the contours and from an inspection of the site itself that the upper part of the acropolis, the part now occupied by the palace, is practically a higher and upper or inner acropolis.[5]

We naturally therefore began to look for any possible surviving traces of such a Middle Helladic wall elsewhere on the summit of the acropolis and lying approximately on the same contour line. Our attention was thus drawn inevitably to the wall below the north-west angle of the Palace. This wall (FIG. 8), which is about 1·00 m. thick, survives to a height of three courses or about 1·50 m. It is a packed wall of largish stones, and unfortunately at either end, to the north-east and to the south-west, has suffered much from Hellenistic or other late disturbance. Towards its south-west end it is crossed by a small modern flight of steps which carries the present footpath from the Ramp to the north-west angle of the Palace. Careful examination of the structure of this wall suggests that it is not of Late Helladic date. In construction and appearance it is quite different from the walls of the Palace, which are generally of Late Helladic date.

Across and above it, running in an east–west direction, are the remains of a wall of large stones (at level 266·50 between 1 and 8 on Dr. Holland's plan, see FIG. 7), which in its 'Cyclopean' construction certainly appears to be L.H. III in date and to resemble the Palace Walls, for instance the West Terrace wall. Since this fragmentary wall is only a short distance

---

[1] *Mycenae*, plan C.

[2] *Karten von Mykenai*, pl. II.

[3] *BSA* XXV 212, 216, pl. II 1, 8. The numbers here given in the text to various parts of the palace are those of Dr. Holland's plan. See FIG. 7.

[4] Wace, *Mycenae*, pls. 101–103.

[5] Wace, *Mycenae*, pls. 36, 38 *c*, 104 *a*.

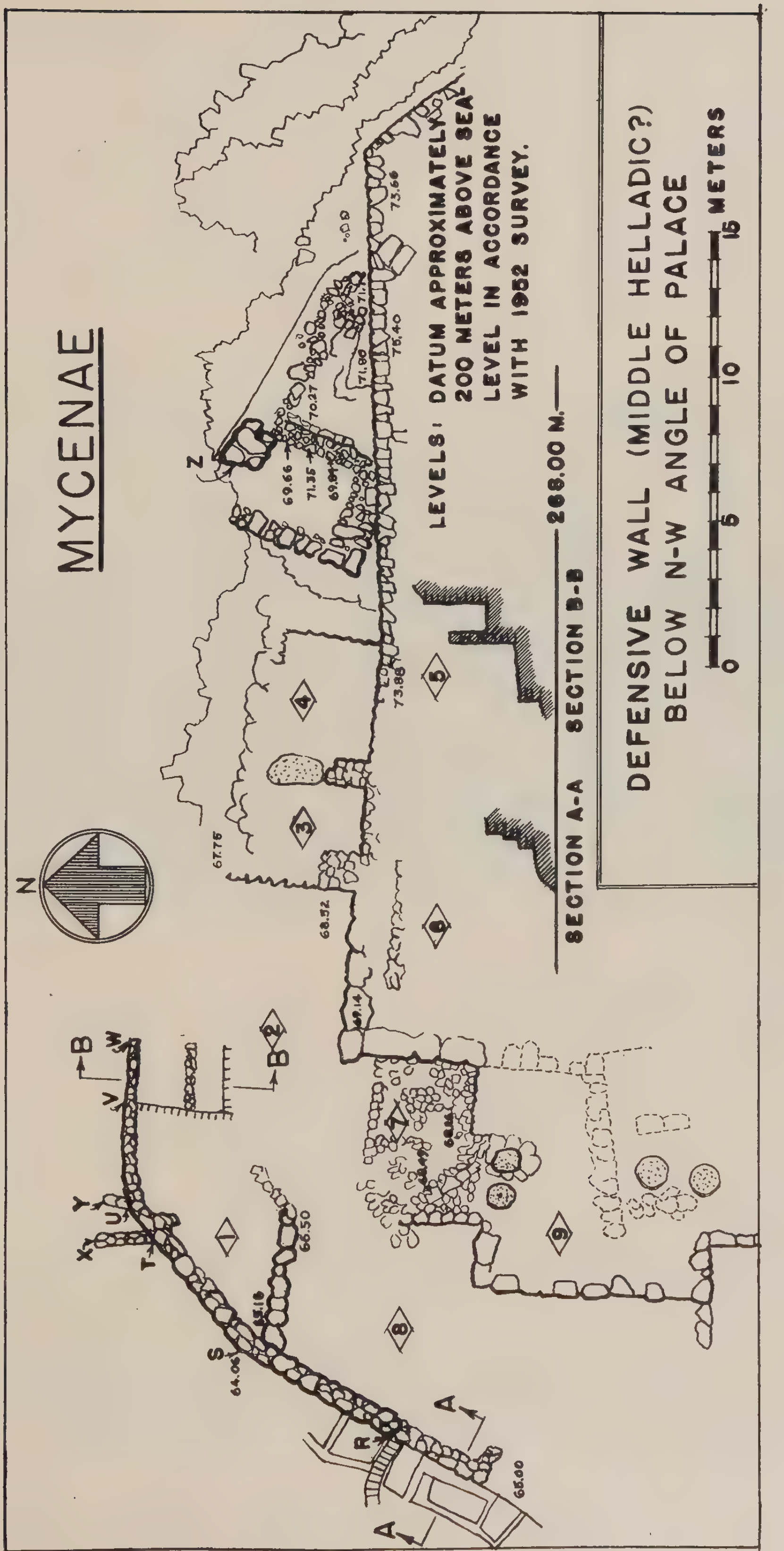

MYCENAE
N
LEVELS: DATUM APPROXIMATELY 200 METERS ABOVE SEA LEVEL IN ACCORDANCE WITH 1952 SURVEY.
268.00 M.
SECTION A-A
SECTION B-B
DEFENSIVE WALL (MIDDLE HELLADIC?) BELOW N-W ANGLE OF PALACE
0
5
10
15
METERS
A
A
B
B
R
S
T
U
V
W
X
Y
Z
1
2
3
4
5
6
7
8
9
64.06
65.18
66.50
66.00
68.52
67.75
69.14
73.86
69.66
71.35
69.84
70.27
71.90
75.40
73.66

Fig. 7.—Mycenae: Middle Helladic (?) Wall, Plan.

north-west of the paved court (7) of the North-west Propylon of the Palace, it may well mark the end of the inclined approach road, where it at last turned into the paved court. Remains of a wall of similar appearance can be seen just below the East Lobby of the Grand Staircase (67), and perhaps marks the end of the approach road in that direction. We may thus assume that this upper wall is of Late Helladic date and probably belongs to the period of the construction of the Palace.

The lower wall with which we are concerned should then be earlier than the L.H. III period at least. We know all too little about Middle Helladic building, but this wall certainly has an early appearance. Although Early Helladic pottery is found here and there below the Palace in small quantities on the rock, there is no sign of any building accompanying it. Walls that are probably Middle Helladic have been found below the Court and in the lower strata of the Pithos Area, but they provide insufficient comparative material. Still, since the wall on the north-west shoulder is apparently later than Early Helladic, we felt that it might perhaps be Middle Helladic and that it might have continued to the north-west the line of the wall found on the rock ledge below the Temple Terrace. In 1950, therefore, we decided to test it by clearing its face and examining it closely to determine how far it had been altered by Hellenistic or other rebuilding. We also decided to make cuts across it to examine the deposit behind it and to test the hillside between its east end and the wall below the Temple Terrace, to see whether any connection between the two could be traced.

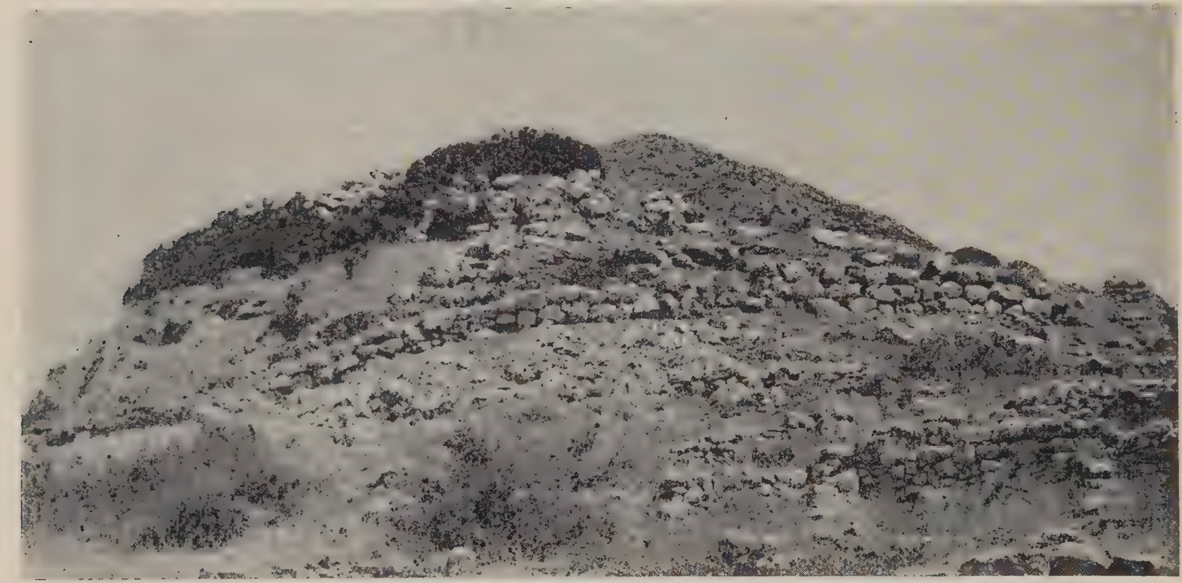


Fig. 8.—Mycenae: Middle Helladic (?) Wall From North-West.

The wall is easily seen by any visitor who, coming up from the Lion Gate, is on his way to the Palace. Indeed, the steps (fig. 7, R) which the visitor climbs cut across the wall at the south-west extremity of its extant length; but should he turn north-east instead of mounting the steps, and follow the path which leads to the Postern Gate, he will pass along directly in front of the wall.

The wall runs east of north from the steps, straight for some 6 m. before turning slightly more eastwards, then continuing for about the same distance to an angle which turns the course due east. What we see is a loosely built wall of rough, largish stones, with a thickness of two or three stones, and standing to a height of a metre to a metre and a half. Today with earth backed up behind to its full height it serves as a terrace wall.

In order to attempt to establish the date of the wall, it was decided to make a cut into the wall from behind immediately east of the point S. It should be pointed out here that the examination of the wall from behind in the sector RS, highly desirable though it is for the future, is rendered extremely difficult by the presence of very heavy blocks of masonry belonging to Mycenaean constructions in that area. It soon became apparent that the wall was built directly on a rock shelf at a place where it is more or less level. A short distance in front of the wall the rock slopes downwards, and immediately behind it rises steeply. This can be appreciated from the fact that, only 2 m. behind the wall, the level of the rock already reaches the extant height of the wall.

The contents of the filling behind the wall were not at first very helpful. As could be expected, there was a certain amount of loose stone, but not so much as to make a really substantial backing to the wall, while finds were few and entirely Late Helladic in date until we got near the rock. Then we observed on the south side of the trench, and stretching backwards away from the wall, a layer of yellowish clay some 2 inches thick, beneath which was a thin but exclusive stratum of Middle Helladic material directly above the rock surface. A quantity of sherds was found (PLATE 42) of yellow Minyan, Matt-painted, and grey Minyan in that order of frequency, with also one or two fragments of wheel-made pottery painted brown and polished.

An explanation was soon apparent, for when the excavation was extended westwards, the clay layer was found to have formed part of the preparation for a well-made and solid wall of Mycenaean masonry running roughly east to west. Of this later and upper wall we have the heavy footings and first course, and its western extremity would seem to have rested on top of the earlier wall. Undoubtedly Late Helladic as it is, its purpose may reasonably be assumed to be to support the end of the roadway as it came up from below and turned up towards the paved area (7) in front of the propylon (9).

So close would seem to be the connection between the earlier wall and the Late Helladic wall that, while the former could on the evidence easily be Late Helladic, a Hellenistic date seemed altogether improbable. It may have been Late Helladic built to support the constructions farther up the slope, but on the other hand it may well have been already in existence and merely utilised for the new purpose. Furthermore, its appearance certainly does not suggest Late Helladic building, and indeed it is quite different in construction from the West Terrace wall farther along.

Further cuts were made into the wall from behind in the sector ST. Invariably there was an exclusively Middle Helladic deposit at rock level, and as we got away from the area of disturbance caused by the Late Helladic wall just mentioned, we found much more loose stone filling behind the wall, and Late Helladic or later sherds seemed not to occur below the immediate surface.

As to the face of the wall little can be said. There was only the thinnest layer of earth here and, as can easily be seen, the wall was used all along as the back to some Hellenistic structures of which the side walls are visible, particularly in the area of the steps. Hellenistic pottery and tiles were found here, but nothing in circumstances which could throw light on the building of the wall.

Next to be considered was the angle comprising the points TUXY. The wall TX is clearly Hellenistic, built either for some structure in front of the wall or else possibly as a buttress. The wall is interesting because, though in appearance like ST, it does not continue that line, and what is more it does not rest directly on the rock, having some 0·10–0·15 m. of earth beneath, in which Hellenistic pottery was found. Here the wall has to turn eastwards in order to conform to the line of the rock. Digging inside the wall at the angle revealed the bottom course resting on the rock and in line with ST. The present face would appear to be a rather untidy Hellenistic reconstruction after a collapse of the wall in this area. As has been said, the original bottom course was found in place inside the present line, and on the inner side of that was a typical Middle Helladic deposit. The implication is that the original line passed inside the present one, and that the Hellenistic reconstruction was effected entirely from in front, with no attempt to establish a new foundation from inside. The extension UY is nothing more than two very large blocks of Late Helladic masonry which had presumably fallen down from farther up the slope and were put here to buttress the angle.

When we moved eastward it became apparent that the full force of whatever caused the collapse of the angle had been directed against the sector UVW, because UV is a stretch of neat, well-built Hellenistic walling of smallish semi-dressed stones, and presumably therefore a reconstruction. It rests directly on the rock, and clearly here the old wall had been completely destroyed, and it was necessary to build again from the foundations. However at point V we have another change back to a wall with the loose construction of RST which, like RST, but unlike TU, rests directly on the rock. At the lowest level inside it were found Middle Helladic sherds, which had been conspicuously absent inside the line from U to V.

The stretch VW is very ruinous, no more than three courses high, and at W the wall peters out at a point where the rock is exceedingly rotten and crumbling. Here the wall would have had to turn south-east and climb steeply up the line of the rock towards the angle of the Temple Terrace Wall. If there ever was anything here it has gone completely, and there is nothing on that exposed face of rock except a few tiny pockets of earth which revealed nothing.

Inside the line between V and W there is a cleft in the rock, and here, working up towards the Guard Room (FIG. 7, ⟨3⟩, ⟨4⟩), we first uncovered a wall which is clearly Hellenistic, set at right angles to another Hellenistic wall running north in continuation of a Late Helladic wall, which also had a wall at right angles to it. Clearly this was a dangerous piece of ground which needed support, but, whereas the Late Helladic wall behind is solid and sound, the Hellenistic one in front is by comparison flimsy. Presumably after the collapse in this area the Hellenistic builders thought it safer to interpose a new wall between the Late Helladic wall and VW, which probably had to be reconstructed in its upper courses.

Of the prehistoric walls below the Guard Room one might say that it is possible that some of them are in part Middle Helladic, and perhaps the stones used to level the surface of the rock for the Guard Room foundation may have been part of some Middle Helladic construction in this area. Certainly a considerable quantity of Middle Helladic material was found on the rock surface between the walls and mixed up with the loose stones.

In the south-westerly direction as far as the modern steps the wall is continuous, but beyond that it is lost. The extant wall there is confused and late, nor is it quite on the line where we would expect an extension to be, for a continuation along the line of the rock slope would involve a slight turn southwards at the steps. With this in mind we made an examination of the wall south from here, but all along there is confusion caused by later building. Most of the extant walls are clearly Hellenistic, though there are patches where older walls may have been utilised. The suggested line of the wall would pass outside the West Terrace Wall. The probability that such would be the case is suggested by the finds of Middle Helladic material in previous excavations outside the line of that wall.[6]

---

[6] Notably in the Pithos Area, *BSA* XXV 160, 172 ff.

An attempt was made on the south side of the Citadel above the ravine to see if anything could be found. Several trenches were dug in what seemed to be likely places on the line of the contour (about 264·00–266·00 m.). The results were negative, however, for not only did we fail to find a wall of any kind, but finds of any sort were almost non-existent. Clearly the whole nature of the ground in this area was altered by the major landslide which involved so much destruction to the Palace area.

On the east side too, numerous trenches were dug, all equally fruitless; understandably so since the area has suffered much from denudation and Hellenistic disturbance.

Our attempts to find any further signs of this wall on the north-western shoulder of the summit of the Citadel were thus negative. We must therefore endeavour to form some opinion about its date and purpose from the evidence gleaned from the excavations recorded above. In appearance the wall looks neither Late Helladic nor Hellenistic, to which periods most of the walls now visible on the Citadel belong. A wall, however, of this construction might belong to almost any period. From the archaeological evidence it cannot be Hellenistic because it underlies a wall which is clearly Late Helladic, the wall between 1 and 8 on the plan. On the other hand, it differs in construction (as can be seen from the photograph in FIG. 8) from the Late Helladic walls of the Palace. The possibility remains therefore that it might be Middle Helladic.

This Mycenae wall is associated with a definite Middle Helladic deposit and, generally speaking, it follows a well-defined contour line along the north-western shoulder of the Citadel. If it is Middle Helladic what was its purpose? Could it have been a defensive wall protecting the Middle Helladic settlement on the summit of the Citadel, which there is reason to believe is the oldest Mycenae? We know at present all too little about Middle Helladic building.

The only wall elsewhere with which we can really compare the Mycenae wall is the town wall of Malthi, which is dated to the Middle Helladic period.[7] The Malthi wall varies in thickness from 1·60 to 3·55 m., and at some points is still 1 m. high. The blocks of which it is built are not very large and are packed. It followed the contour of the hill. Thus there are resemblances between it and the Mycenae wall, though the latter is thinner. The Mycenae wall is more like a terrace wall, but might have served as the base for a wall of crude brick. The summit of the acropolis at Mycenae would have been easily defensible, and like Malthi would not have needed at that date a very stout or high wall. The Mycenae wall could have been a combined circuit and terrace wall running along the contour, but how far it could have served as a defensive wall must remain an open question. It must be remembered that the deeper deposits of Middle Helladic pottery on the acropolis have been found behind this wall, below the Temple and adjoining rooms to the south of the North Corridor,[8] below the Court,[9] and in the Pithos area,[10] and that all these deposits lay above the contour where this suggested defensive wall runs.[11] The dating of this Mycenae wall to the Middle Helladic period seems probable in view of its close association with the deep deposit of Middle Helladic pottery described above. If this can be accepted, it would confirm the idea that the kernel of Middle Helladic Mycenae naturally lay on the summit of the acropolis, the area of the Late Helladic palace. This is the area already suggested as the original citadel [12] of Mycenae.

K. R. ROWE

---

[7] Valmin, *Swedish Messenian Expedition* 16 ff; perhaps too the undated wall on the Aspis at Argos, *BCH* XXI (1907), 139 f., pl. V.

[8] Discovered in 1939, cf. *BSA* XXV 223.

[9] *BSA* XXV 197 ff.

[10] *BSA* XXV 173 ff.

[11] In addition to these walls in the Palace area already mentioned, the east–west wall just south of the Perseia Fountain House which was found in 1953, and will be published by Lord William Taylour, is probably Middle Helladic. If the dating is correct, that wall would provide yet another possible comparison,

[12] Wace, *Mycenae* 62, 69, 84, 87.

MYCENAE 1939–1953

PART IV. THE 'GALLERY' IN THE NORTH WALL

Almost midway between the Postern Gate and the north-west angle of the Cyclopean Walls there is against the inside of the wall a chamber with a roof in the form of an inverted V, called by Steffen [1] on his plan 'Galerie'. Schliemann does not refer to it, and the 'gallery' he mentions [2] is the drain through the wall east of the secret cistern. Tsountas and Manatt [3] say: 'What had long been taken for a gallery in the north wall proves to be nothing but a little chamber measuring less than 7 by 12 feet.'

In this connection it must be remembered that at Mycenae there is usually a narrow passage between the inside of the Cyclopean wall and the buildings within.[4] The chamber mentioned has therefore probably been formed by covering this passage with an inverted V roof resting on one side against the Cyclopean Wall and on the other against the rock which rises rather steeply southwards at this point within the walls. This was probably done at a comparatively late stage in the history of the prehistoric citadel as indicated by Mr. Kenneth Rowe below.

Since this chamber had never been planned or described in detail or even illustrated in any publication, we decided in 1950 to examine it and to plan and photograph it in order to attempt to determine its date. The work was carried out by Mr. Kenneth Rowe, whose report follows.

A. J. B. W.

This chamber is in fact not a 'gallery' at all, since it does not run within the wall, but it is a roughly built structure lying adjacent to the inner face of the wall (FIGS. 9 and 10). It is constructed of largish stones roughly dressed, built against the inside of the Cyclopean Wall. Its sides slope slightly inwards towards the top, which was covered by conveniently shaped large stones. The rear part is intact, but in front much of the roof has fallen, while the present inner wall, the south wall, is a reconstruction. It seems that the rock against which it is built on the south side must have shifted and fallen, with the result that in the forward part the gallery is narrower than it was originally. In the original part it is about 2·40 m. wide at the bottom, tapering to about 0·50 m. at the top, where its height is about 2·70 m. The total length would have been perhaps 6 m.

When the ground had been cleared of fallen stone and earth, spoil which contained very little, it was found that the floor consisted of a layer of clay on top of a bed of rough, uneven stone slabs, above which was a burnt layer. Despite the collapse of the roof and the consequent intrusion of extraneous material, the sherds on the floor (especially those in closest association with the burnt layer) were almost exclusively L.H. IIIB and C.

As has been said, the 'gallery' is not part of the structure of the Cyclopean Wall, and it must be later than this. The reconstruction of its south wall must be later still, but there was little or no pottery of later date than L.H. III on the floor of the gallery, so that in all probability the reconstruction also falls within the L.H. III period. The clay floor would seem to belong to the same period as the reconstruction, though it could be earlier. On the whole it seems likely that the reconstruction did not long post-date the original.

---

[1] *Karten von Mykenai*, pl. II.

[2] *Mycenae* 31 f., plan C; Wace, *Mycenae* 98, fig. 19 Q.

[3] *Mycenaean Age* 330; Wace, *Mycenae* 50.

[4] Wace, *Mycenae* 57, 111.

About half-way along the narrow part of the gallery, on the north side, there was found resting on the floor a block of stone, having on its top surface a small lead-lined socket. Some 0·40 m. above it there is a cutting in the stone wall suggesting that there has been some sort of gate there in recent times. This is mentioned in case at some future date, with the removal of the block with the socket, the cutting in the wall should cause some speculation.

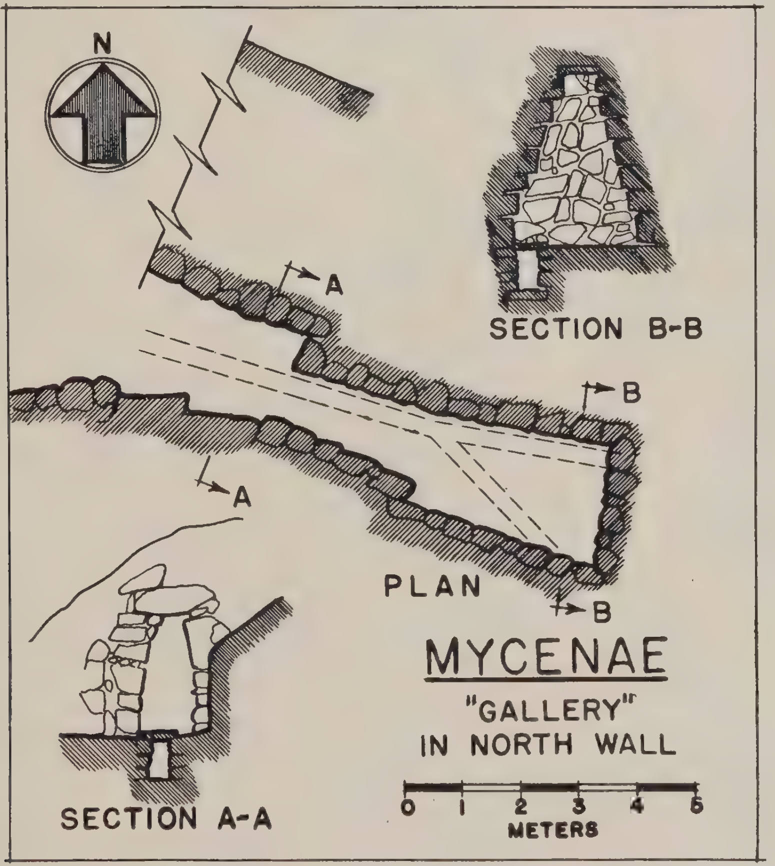


Fig. 9.—Mycenae: ‘ Gallery ’, Plan and Sections.

The most interesting thing about the ‘ gallery ’ is that it was found to lie over the confluence of two drains. These lie immediately below the floor, and the rough stones that cover them are part of the floor. One drain comes down from the south-east and runs the length of the gallery, while the other, coming down from the hill to the south, joins it under the original part of the gallery. The combined course first runs gently down some 6 m. north-westwards in front of the gallery, and then makes a slight bend to the right, before continuing in the same north-westerly direction for a further 3 m. Then it turns right through about forty-five degrees and runs down more steeply for 2 m., before straightening out and dropping sharply into a large cavity about 2·00 by 1·50 m., bounded on one side by the Cyclopean Walls and on the other by natural rock. It appears that the drain would have run out underneath the Cyclopean Wall from this cavity,[5] but its exit has been blocked. At the west end of the cavity also there seems to be another drain coming down from above.

The drains are about 0·30 m. wide and 0·80 m. high. A man can easily crawl along them. The sides are roughly lined with stone, but not the bottom, which is about 0·80 m. deep under the gallery, increasing to over 1 m. as it descends to the Cyclopean wall. The top was covered, both within the gallery and outside it, by rough slabs of stone. The pottery from the drain, although inevitably somewhat mixed, showed very little that was earlier than L.H. III.

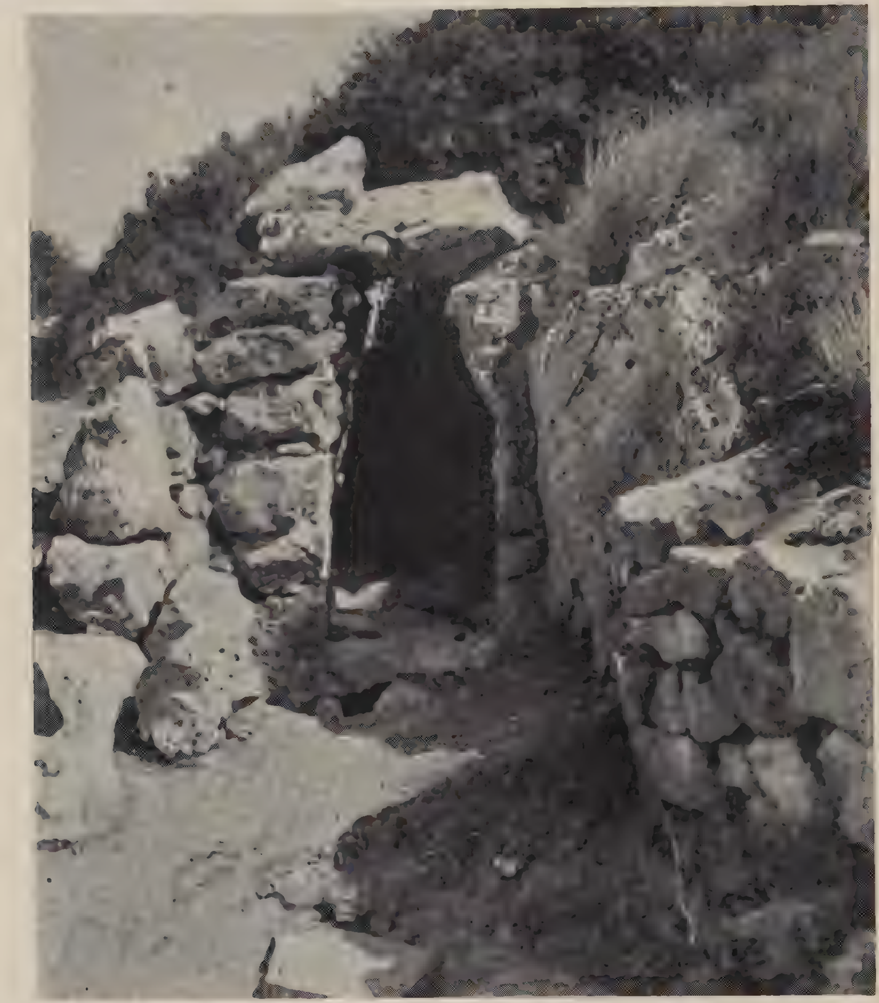


FIG. 10.—MYCENAE: 'GALLERY' FROM WEST.

It is possible, as indicated by Steffen,[6] that there was a similar chamber similarly constructed built against the inside of the Cyclopean Wall to the north-west, '*wahrscheinliche Lage von Galerien*', and indications in the sides of the passage following the inside of the

[5] Compare the drain under the Granary, *BSA* XXV 62.

[6] *op. cit.* pl. II.

Cyclopean Wall here agree with this possibility. The north-western extension of the drain described above would have run underneath this.

The purpose of these ‘ galleries ’ would seem to be no longer ascertainable. It is possible that originally the drain was not completely covered over and that its purpose was sanitary; but if that was so, this use must have ended with the reconstruction, involving the complete covering of the drain and the laying of a clay floor. Perhaps, then, the chamber became a store, though for what we cannot tell. It may even have been a shelter for the defenders of the wall.

K. R. Rowe

MYCENAE 1939–1953

PART V. FOUR TOMBS[1]

(PLATES 43–46)

L.H. IIIC Cist Burial (Plate 43, *a*), Prehistoric Cemetery, Grave XXXIX

This is a true cist burial, in that the skeleton, of an infant, was placed in a stone casket. The casket is a single block of poros, roughly hollowed out until the requisite depth was reached. Its dimensions are 0·60 m. × 0·50 m., but the block is not a perfect rectangle by any means. The depth is *c.* 0·30 m. Underneath the block a group of seven roughly circular shallow holes and two shallow rectangular depressions are to be seen; the only explanation I can suggest for these is that it was perhaps originally intended to hollow out the block from this side. Over the casket two blocks of sandstone were placed; both have a shallow depression underneath. At the west end of the casket and closely adjoining it lay a triangular block of poros about 0·48 m. wide and 0·35 m. high (only partially visible on Plate 43). This, from the similarity of material and workmanship, seems to have had some connection with the burial. Could it have been a small unsculptured *stele*? The unsculptured *stelai* from Schliemann's Grave Circle are triangular at the top.[2]

The burial lies partially over a wall [2a] which may have been intended as a boundary for the Prehistoric Cemetery area, thus showing that the height of the wall mentioned can have been no higher at this point at the time of this burial, and suggesting that, if in fact this is an enclosure wall, it was not felt desirable to bury the dead outside the enclosure, either in the case of this burial or in that of the Geometric cist and pithos burials, and arguing some continuity in the cult of the dead. The wall itself, so far as has yet been ascertained, cannot be later than the L.H. IIIA period, and is probably considerably earlier.

The casket was not placed immediately on the wall; it seems to have been seated on earth and small stones, and held in position by a large triangular block at the NW end. The orientation is NW–SE.

The casket contained the bones of an infant, two small vases, found at the SE end, and a steatite spindle whorl.

Description of Contents.

1. PLATE 43. Inv. no. 53–79. *Bowl.* H. 0·072 m. Max. D. (at mouth) 0·098 m. D. of base 0·036 m. Clay, clear light brown, white-brown wash on the surface; it is slightly micaceous, with a few impurities; the vase is well made, and the walls are very thin. Paint, dull yellow-brown, with a stippled effect in parts. The handles are rounded, and the foot is of the base-ring type. The general and detailed decoration is shown on PLATE 43; note that the interior is entirely painted over except for the reserved band under the lip, and that the area beneath the handles is free of paint. The decoration on the other side of the vase is similar. *Cf.* Furumark, *Analysis*, type 286, p. 49, fig. 14. Date: L.H. IIIC2. This vase belongs to the Granary class.

---

[1] I have undertaken the publication of these tombs at the kind invitation of Professor Wace, Director of the Excavations at Mycenae in 1953, when the tombs were discovered. The tombs were excavated by Mr. G. Huxley and Mr. T. L. Shear, Jr., to whom I am indebted, as well as to Professor Wace, for much essential information. I have also had much valuable assistance on many points from Mr. P. Courbin, of the French School, Dr. Kunze, the Director of the German School, Miss S. Benton, Mr. T. J. Dunbabin, and Mrs. E. L. Smithson. The responsibility for the views adopted is, nevertheless, mine.

[2] Wace, *Mycenae*, pl. 38*d*. I owe this suggestion to Professor Wace. [2a] FIG. 1 (18).

2. PLATE 43. Inv. no. 53–80. *Jug.* H. 0·089 m. Max. D. 0·072 m. D. of lip 0·04 m. D. of base 0·033 m. Clay, light brown, soft and flaking off in places; the fabric is good and well prepared; there are traces of mica. Paint, clear red, slightly lustrous. Foot, base-ring. Decoration as on PLATE 43; the bottom of the vase, and the foot, are painted over. Date: L.H. IIIC2. No type given by Furumark so late as this.

3. Inv. no. 53–75. *Conical spindle whorl in steatite.* Length of sides 0·02 m. D. of top 0·009 m. D. of base 0·025 m. D. of hole which pierces the spindle whorl 0·005 m.

PROTOGEOMETRIC CIST BURIAL (PLATE 43, *b*), TOMB PG 601

This tomb was found sunk into the floor of the west room of the House of Shields. Its dimensions are roughly 1·40 m. × 1·00 m. × 0·35 m., but the measurements vary, as the grave was not originally dug with any accuracy, nor was any attempt made to line the sides or the bottom with stones. The tomb was covered by an assortment of poros blocks and stones, the smaller stones lining the two long sides, and the blocks placed over the centre. The tomb ran NW–SE and contained the skeleton of an adult with the head to the west; the arms were folded, and the legs were hunched up. In addition to the skeleton, the contents consisted of a belly-handled amphora, a three-legged askos, an iron pin (incomplete), and a spindle whorl. The two vases were found by the skull, to its left side. The spindle whorl was found at a slightly higher level than the rest of the contents.

Description of Contents.

1. PLATE 43. Inv. no. 53–615. *Belly-handled amphora.* H. 0·32 m. Max. D. 0·24 m. D. of mouth 0·13–0·155 m. D. of base 0·097 m. Clay, brown core becoming a lighter brown, and greenish on the surface; there are impurities. Paint, dark brown to mauve brown, rather smeared on; much perished. The vase is not very well made, the neck not being set plumb on to the body; consequently the ridge at the point of junction between neck and body is more prominent on one side. The lip has a flat rim and a rounded edge. The foot is slightly undercut beneath. The general and detailed system of decoration is as shown on PLATE 43; but note that, inside, paint continues the whole way down the neck; also that the painter, in drawing his circles, twisted his multiple brush round clockwise from the top. The decoration on both sides is identical.

2. PLATE 43. Inv. no. 53–614. *Askos.* H. to top of body, 0·11 m.; to top of spout, 0·123 m.; to top of handle, 0·128 m. Max. D. 0·11 m. D. of spout 0·031 m. Length of legs 0·045–0·051 m. Width of legs *c.* 0·017 m. Thickness of legs 0·0065 m. Clay well baked, slightly micaceous, clear light brown. Paint rich dark brown, rather lustrous.

The body of this vase is hollow; the top and central parts are wheel-made, the lower part looks hand-made. Two apertures were made in the top part, the one being closed later, and the other leading to the spout; there is also a small airhole near the point where the handle meets the spout. The handle was made separately, put on, and then the wheel-made spout fixed on to the handle and the body. The three legs were also made separately.

The general and detailed scheme of decoration is as on PLATE 43, but it should be noted that paint covers the inside of the spout as far as possible, that two wide intersecting bands of paint were applied to the part of the body underneath, and that multiple triangles replace the cross-hatched ones on the other side of the body.

3. (Not illustrated). Inv. no. 53–616. *The lower part of an iron pin.* Preserved length 0·163 m. D. tapering from 0·007 to 0·002 m. Circular shank. The upper part is missing, and so no indication can be given as to type, but a Protogeometric date is possible.

4. (Not illustrated). Inv. no. 53–617. *Spindle whorl* of dull dark-brown stone, conical in shape. Length of sides (which slope at an angle of about 45°) 0·0105 m. D. of top 0·0145 m. D. of base 0·024 m. D. of hole pierced vertically through 0·006–0·007 m.

Commentary

The presence of this tomb below the floor of a house of the L.H. IIIB period might appear unusual. The house seems to have been burnt and destroyed at the end of the L.H. IIIB period, and thereafter to have been a heap of ruins. Thus it would have been natural, three centuries later, for a Protogeometric grave to be dug into the ruins, especially since we know that the area to the north had been used as a cemetery from Mycenaean times. A few scattered sherds of Geometric pottery and of Pie ware were found in the surface layer above the house (see p. 264), but no Protogeometric sherds have yet been recognised among them.

So far as concerns the contents of the tomb, the whorl and the fragmentary pin need little discussion. It is noticeable that the whorl has less steep sides than its counterpart in the L.H. IIIC tomb. Both it and the pin are consonant with the Protogeometric date of the tomb.

This dating to the Protogeometric period is provided by the belly-handled amphora, which is certainly Protogeometric. Such vases are not frequently found outside Athens (*cf.* Desborough, *Protogeometric Pottery* 31 ff.), and this is the only clay-ground one, to my knowledge, from the Argolid. A possible sign of earliness is given by the full circles on the shoulder, but this is not necessarily strong evidence when one is dealing with areas outside Athens. The small number of circles is perhaps surprising, but the same answer as above probably holds; *cf.* the jug from Mycenae shown in *Protogeometric Pottery*, pl. 28B. I would be inclined to place this vase in the second half of the tenth century.

The askos has no contemporary parallel in the Argolid to my knowledge, but that it continues the Mycenaean tradition is clear from the lower half of a similar one found in House G at Asine,[3] presumably L.H. IIIC in date. No Protogeometric askos is known elsewhere in the Argolid, nor indeed anywhere on the mainland, with the exception of the two very early askoi from the Kerameikos.[4] The shape is to be sought rather in Crete, Kos, and Cyprus; it is tempting to suppose that there may at this time have been some connection between the Argolid and one or more of these areas.[5]

GEOMETRIC CIST BURIAL (PLATE 43, *a*), PREHISTORIC CEMETERY, GRAVE G. II

This tomb lay only a foot or two east of the L.H. IIIC burial already described. Its orientation is NW–SE, though not quite on the same axis as the L.H. IIIC tomb. It also lies partially on, and to the south of, the east–west wall which seems to bound the Prehistoric Cemetery area to the north.

The dimensions of the tomb are 1·80 m. × 0·82 m., and its depth is 0·72 m. The rectangular pit thus formed was lined with upright limestone blocks, one at each of the shorter ends, and two along each of the longer sides. The thickness of these blocks is about 0·10 m. The cist was then covered by two large blocks of similar stone, of irregular measurements, and the tomb thus formed seems to have been packed around with smaller stones.

On the south-eastern covering block, and immediately to the east of it, were found nine wheel-made and five hand-made vases. These do not appear to have been protected in any way, but were nevertheless still in excellent condition. Nothing was found on the other covering block.

Inside the tomb a few bones belonging to an adult were found; they were in good condition, but were mostly not in position, and were insufficient in number for even one skeleton. No traces were found of a skull.

Five vases had been placed in the tomb, four of which, all in good condition, had been placed at the NW end; the fifth had been broken, and lay in the centre of the tomb. Halfway along the southern wall lay an iron dagger, with its point to the east. East of this, also against the southern wall, a finger bone, to which a ring was attached, was found. In the centre of the tomb, at its south-eastern end, lay two iron pins and a bronze pin.

All the bones and metal objects lay about 0·10 m. above the bottom of the cist, and the vases were immediately above them. In addition to these objects, a number of sherds of varying date (including some specimens of Pie ware), but in no case later than Geometric, were recovered from the digging out of the cist, at a level above that of the vases.

---

[3] *Asine* 300, no. 3, and fig. 207, 3. The decoration differs, but the shape appears similar.

[4] *Kerameikos* I 92, 188 and pls. 59 and 63.

[5] Cf. *Protogeometric Pottery* 224.

Description of the Vases Found Outside the Tomb

Wheel-made.

1. PLATE 44. Inv. no. 53–321. *Kantharos.* H. 0·115 m. Max. D. 0·178 m. D. of mouth 0·164 m. D. of base 0·077 m. Clay fairly hard and well baked, pale pink to pale brown. Paint lustrous, very dark chocolate. Ribbon handles, with decoration of crossed diagonals at the top, and bars below. Ring base, rather crudely moulded, and with a concave curve underneath. General and detailed system of decoration as shown on PLATE 44, but note the following: paint covers the inside, except for a small reserved circle at the bottom, and a reserved band just below the lip; this reserved band has six groups of nine vertical lines, each group 0·028 m. in width; the wiggly lines between the handles are in similar groups of nine and of similar width, thus proving the use of the multiple brush.

2. Not illustrated. Inv. no. 53–323. *Kantharos.* H. 0·108 m. Max. D. 0·17 m. D. of mouth 0·162 m. D. of base 0·08 m. Clay, paint, shape, and decoration similar to those of 53–321, except that there are only two retaining bands below the handle zone, and the bars on the handle are interrupted by a thick band. The group of vertical and wiggly lines are also of the same width as those of 53–321, and it may be presumed that the same multiple brush was used.

3. Not illustrated. Inv. no. 53–324. *Kantharos.* H. 0·12 m. Max. D. 0·183 m. D. of mouth 0·17 m. D. of base 0·087 m. Clay very light brown, but with a rather pinker surface look than on the two preceding kantharoi. Paint dull, dark brown. Same general shape and system of decoration as those of 53–321, with the following exceptions: no reserved circle at the bottom inside; nine sets of groups of nine vertical lines below the lip; one band below the rim, outside, instead of two; the groups of flanking vertical lines in the handle zone do not come below the retaining bands; the width of these sets of vertical and wiggly lines is 0·034 m.

4. PLATE 44. Inv. no. 53–322. *Cup.* H. 0·065 m. Max. D. 0·116 m. D. of mouth 0·107 m. D. of base 0·045 m. Clay white-brown to light brown. Paint dull, dark brown to black-brown. Base flat. General and detailed system of decoration as shown on PLATE 44, but note the following: the inside completely painted over except for the reserved band below the rim; handle decoration, intersecting diagonals; beneath the handle, intersecting diagonals, and flanking these two sets of vertical lines in groups of ten, the decoration then continuing on to sets of wiggly lines, also in groups of ten, all 0·025 m. in width. No decoration under the base.

5. PLATE 44. Inv. no. 53–325. *Cup.* H. 0·05 m. Max. D. 0·078 m. D. of mouth 0·069 m. D. of base 0·043 m. Clay fairly hard, micaceous, brown; a whitish slip on the surface. Paint dark brown to a rather lustrous black. Base flat, asterisk decoration. General and detailed system of decoration as shown on PLATE 44, but note the following: small reserved circle at bottom inside; handle decoration, crossed diagonals on the upper part, bars below; two sets of ten vertical lines flank the handle; the wiggly vertical lines do not appear to be similarly grouped. This vase was found unbroken.

6. PLATE 44. Inv. no. 53–326. *Skyphos.* H. 0·105 m. Max. D. 0·167 m. D. of mouth 0·146–0·156 m. D. of base 0·077 m. Clay softish, brown to white-brown on the surface. Paint dull dark brown to black-brown, much perished. Ring base, with very sharp ridge on the outside. Painted inside, except for a reserved band at the rim with sets of vertical lines in groups of ten. Two bands round the outside of the rim. The rest is painted except for the space beneath the handles, and for a panel on each side, between the handles, immediately below the rim; a considerable area of paint flanks these panels, which consist of a zone of wiggly vertical lines supported by three horizontal lines (I doubt whether the same multiple brush was used as for the groups inside the rim).

These six vases are clearly of one style, and two are demonstrably by the same hand (1, 2); I do not think one can go further than that.

7. PLATE 44. Inv. no. 53–331. *Pyxis.* H. 0·09 m. Max. D. 0·092 m. D. of mouth 0·044 m. D. of base 0·029 m. Clay fairly hard, very few impurities; light buff, white-brown on the surface. Paint rich brown to dark brown. The pedestal base is solid. The two lugs are pierced lengthwise for string attachment. General and detailed scheme of decoration as on PLATE 44; note that there are six cross-hatched triangles on one side, seven on the other, and that the wiggly vertical lines are painted with a multiple brush, in groups of ten. A sherd from a similar vase was found in the North House.

8. PLATE 44. Inv. no. 53–333. *Pyxis.* H. 0·185 m. to lip; 0·225 m. inclusive of lid. Max. D. 0·195 m. D. of mouth 0·107 m. D. of lid 0·101 m. D. of base 0·092 m. Clay soft, only a few impurities; light brown. Paint lustrous, chocolate to dark brown. A well-made vase. Ring base. Rim as in 53–331. General and detailed scheme of decoration as on PLATE 44, with the following additional comments: decoration on top of knob, a cross with right angles in the segments; rim, a continuous zigzag, similar to that on the handles; main zone, six cross-hatched diamonds on the other side; space below the handles unpainted. This vase could be by the same hand as 53–331.

9. PLATE 44. Inv. no. 53–334. *Trefoil-lipped oinochoe.* H. 0·28 m. Max. D. 0·19 m. D. of base 0·101 m. Clay carefully prepared, and fairly thin walls; many impurities; brown core, buff to light brown on surface. Paint dark brown to black-brown. Complete except for tip of trefoil. Ring base. Slight ridge at junction of neck and body. General and detailed scheme of decoration as on PLATE 44.

Hand-made.

10. PLATES 44 and 46. Inv. no. 53–327. *Saucer.* H. 0·034 m. D. 0·10–0·105 m. Thickness 0·005 m. Clay light brown, very coarse, rough and gritty to the touch. Some fragments missing, among which is one of the handles. The remaining handle is pierced vertically by a string-hole. The saucer curves in sharply to an uneven base. The outside of the vase is undecorated. The top of the rim is punctuated by small impressed circles, and two lines of these circles traverse the inside of the saucer, roughly in the shape of a cross.

This saucer belongs to the fabric which has been called Pie ware by Professor Wace, and will be further discussed later (p. 264). A similar saucer was found at Perachora (3006), dated to the second half of the eighth century or to the beginning of the seventh; it has not, however, the impressed circles round the rim, nor the lugs.

11. PLATE 46. Inv. no. 53–328. *Jug.* H. 0·12 m. to lip; 0·137 m. to top of remaining fragment of handle. Max. D. 0·12 m. D. of mouth 0·085 m. D. of base 0·063 m. Clay, pinkish core, dull buff on surface. The fabric of this vase, and of the following ones, is remarkably fine: the walls are thin, and the surface is extraordinarily smooth and has a sort of soapy feel to the touch. It looks as though it has been smoothed off by a sort of paring process, either horizontally or vertically (cf. *Hesperia* XXI 203). The lip swings out sharply. Part of the handle is lost; it has rounded edges. The base is circular, and rather uneven.

12. PLATE 46. Inv. no. 53–329. *Trefoil-lipped oinochoe.* H. 0·188 m. Max. D. 0·161 m. D. of base 0·067–0·075 m. Clay, dull brown core, light brown surface. The 'pared' preparation is most conspicuous on this vase, vertical from lip to belly and horizontal below. There is one splash of very dark brown paint at the top of the handle. Very thin ribbon handle, width 0·027 m., thickness 0·004 m. Base oval.

13. PLATE 46. Inv. no. 53–332. *Trefoil-lipped oinochoe.* H. 0·225 m. Max. D. 0·18 m. D. of base 0·085 m. Clay, dull brown to pinkish core, light brown on surface, firing brown-pink. This is probably the finest of the series; though larger than 53–329, it feels lighter, and is better made; the ribbon handle is more expertly done. The base is circular.

14. PLATE 46. Inv. no. 53–330. *Jar.* H. 0·197 m. Max. D. 0·185 m. D. of base 0·094 m. Clay, pinkish core, dull buff surface. The surface is not quite so smooth as in the two preceding vases, but the technique is the same. The lip swings out sharply. The handles are of the ribbon type, with the inner edge squared off, and the outer edge tapering nearly to a point; many fragments of these are lost. The base is circular.

Description of the Objects Found Inside the Tomb

Pottery.

1. PLATE 44. Inv. no. 53–336. *Trefoil-lipped oinochoe.* H. 0·41 m. Max. D. 0·25 m. D. of base 0·113 m. Clay hard, occasional impurities; brown to very light brown on the surface. Paint dark brown to black-brown, firing red on one side. Part of beak of trefoil lip lost; otherwise almost complete and unbroken. Double strip handle, with barred decoration. Foot low conical. For general scheme of decoration, see PLATE 45. Details of decoration. Neck: ABCDCBA system; A, set of twelve vertical lines; B, three double chevrons, set vertically; C, set of three vertical lines; D, two sets of two interlocking hooks, hatched. Upper shoulder: ten sets of cross-hatched triangles, outlined; two sets of twelve vertical lines flanking the handles. Note that all groups of lines in twelves are done by the same multiple brush.

2. PLATE 45. Inv. no. 53–337. *Kantharos.* H. to lip 0·243 m. H. to top of handles 0·284 m. Max. D. 0·30 m. D. of mouth 0·267–0·292 m. D. of base 0·11 m. Clay well baked and prepared; brown, light brown on the surface. Paint, brown to dark brown, almost purple red on one side. Treble-reeded band handles, finished at the base with an excrescent knob. Foot low conical. Note a distinct ridge at point of contact between rim and body. General and detailed system of decoration as shown on PLATE 45, but note as well: small reserved circle at the bottom of the vase, inside; the first three panels flanking the handles are in succession, a vertical panel painted over, a set of seven vertical lines, and a panel of two sets of small chevrons, running vertically.

3. PLATE 45. Inv. no. 53–338. *Krater.* H. 0·25 m. Max. D. 0·32 m. D. of mouth 0·297–0·301 m. D. of base 0·144 m. Clay softish, brown, with light brown slip which flakes off easily. Paint red-brown to dark brown, much worn inside the vase. A few fragments of the vase lost near the base. Rope handles. Foot low conical. Note a very slight ridge at point of contact between rim and body. General and detailed scheme of decoration as on PLATE 45, but note: five groups of twelve vertical lines round inside of lip; on the other side of the vase there are no asterisks in the bird panels; the area beneath the handles is unpainted.

4. PLATE 45. Inv. no. 53–339. *Broad-based trefoil-lipped oinochoe.* H. 0·29 m. Max. D. 0·26 m. D. of base 0·222 m. Clay softish, buff to light brown, light brown on the surface. Paint clear brown to dark brown, firing red on one side. A few fragments lost near the base. Rope handles terminating in a spur. Two warts on the shoulder, opposite the handle. Slightly projecting base, almost level underneath. General and detailed scheme of decoration as on PLATE 45, but note: the groups of nine vertical lines on the shoulder zone and on the neck probably drawn by the same multiple brush; panel system: on neck, ABCDCBA; on shoulder, ABACABA; on body, ABCB repeated four times: only one of the swastikas on the body zone has added asterisks.

5. PLATE 45. Inv. no. 53–340. *Skyphos.* H. 0·115 m. Max. D. 0·202 m. D. of mouth 0·186–0·202 m. D. of base 0·082 m. Clay well baked, but impurities; pink-red with pinkish core; possibly a white-brown wash on the surface. Paint dull red or brown to dark red-brown outside, dull red inside. This vase is complete and unbroken, and almost unused. Rope handles. Foot rather sharply cut away from the body. Ridge at point of contact between rim and body. General and detailed scheme of decoration as on PLATE 45, but note: small reserved circle at bottom inside; eleven groups of eight vertical lines along inside of rim, almost certainly by the same multiple brush as the two groups of eight on the body zone; under-part of handles, and area beneath handles, unpainted; system of decoration below main zone: three bands, dots, five bands, thick band of paint, three bands, rest painted.

Iron.

1. PLATE 45. Inv. no. 53–125. *Dagger.* Length 0·305 m. Thickness varies from 0·002–0·004 m. None of the material which originally covered the handle has been preserved, but four of the rivets (three on one side, one on the other) show how it was fixed on. Five iron fragments (inv. no. 53–622) probably belonged to this dagger.

2. PLATE 45. Inv. no. 53–632. *Two pins* stuck together. Preserved length 0·131 m.; the ends of the pins have been lost. The two pins are of different type. The one has a large flat head, clearly shown on PLATE 45, and the shank immediately below it appears to be square in section. The second has a small knobbed head (not shown in position in the photograph) with a small bulb close to the head. The state of the shank does not permit one to say anything with certainty about the section, but both shanks were probably circular in the lower part.

Bronze.

1. PLATE 45. Inv. no. 53–636. *Pin.* Preserved length 0·194 m. In good condition. The head consists of a small disk surmounted by a knob. Below this, the shank is square in section, splaying out slightly to connect with a bulb. The shank below similarly splays out to meet the bulb. The upper part of this lower shank is also square in section, but set at a different angle (◊ as opposed to □): the lower part is round.

For parallels to this type of pin, see Perachora 70, and fig. 11, 1, where the examples found at Perachora itself are said probably to antedate the middle of the eighth century. Two very similar pins have been found at Mycenae, the one from the West Terrace of the Temple, the other from the Bothros in the *dromos* of the Treasury of Atreus.

For comment on the evolution of this type, see *Protogeometric Pottery* 310.

Iron and Bronze.

1. PLATE 45. Inv. no. 53–621. *Ring.* Length 0·02 m. D. 0·021 m. Thickness *c.* one-fifth of a millimetre. Found attached to a finger bone. This is simply a very thin sheet of iron, coated with bronze (of which fragments still cling to the iron), and bent round into a circle. There is a raised ridge round the middle.

Commentary

The following circumstances have to be taken into account: the wheel-made vases lying on and outside the tomb seem definitely to be stylistically earlier than those found inside the tomb; the contents of the tomb include three straight pins, a spindle whorl, and an iron dagger; very few bones were found inside the tomb, and no trace of a skull.

Two questions arise out of these circumstances: was the tomb disturbed at some time later than the burial, and was there only one burial?

The scarcity of bones seems to suggest later disturbance. This is possibly strengthened by the fact that, whereas four of the five vases in the tomb are relatively complete, they are placed in such a position as would suggest that they had been moved after the burial, and the fifth is broken and replaced with the base inside it. On the other hand, there is no indication that the vases on the top of the tomb were disturbed, and although it would be perfectly possible for violators of the tomb to remove one of the large slabs without touching the vases on the other slab (to which they might, of course, have been transferred), it seems strange that this slab was thereafter carefully replaced. Nor is there any indication that the immediately adjacent L.H. IIIC tomb was touched. It is hard to imagine that tomb robbers have been at work here, and yet it is difficult to escape the conclusion that some later reopening took place.

The question of the number of burials divides itself into two: the nature of the objects inside the tomb, and the possible chronological gap between the two sets of vases. On the first point, it will be noted that beside the dagger, three pins, a spindle whorl, and a ring were found in the tomb. There is no doubt that the dagger must belong to a male burial; but the straight pins and the spindle whorl are strongly suggestive of a female burial. The second point is rather more complicated. The total number of vases, as such, cannot be taken as an indication of more than one burial, and the possibility of more than one burial must hinge on the answer to the first point. If there were two burials in this tomb, then one would tend to assume that the vases stylistically earlier belonged to the earlier burial; in that case, how did they find their way outside the tomb? It would suggest not only that these vases, previously inside the tomb, had been most carefully removed to make way for the second burial and placed on top of a covering slab when the tomb was closed again, but also that the other objects were left inside the tomb. If there was only one burial, or indeed if there were two relatively contemporary burials, then one must assume that all the vases are roughly contemporary (it will be noted that the finer vases are inside the tomb), and one would have to conclude that, although the one set of vases is stylistically earlier than the other, the two sets are in fact more or less contemporary; and such a conclusion would affect one's understanding of Argive Geometric pottery, and would lead to the conclusion that two stages of a style were contemporary, and would strengthen the view of a strong conservative tradition in Argive pottery. The idea that there may have been two burials in this grave is supported by the fact that Evangelides, in the case of one of his graves which contained two skeletons, found vases both above and within the grave.[6]

It is also possible, however, on the supposition of one burial only, to suppose that the vases found outside were the contents of a disturbed earlier burial, in no way connected with the present one. In this case, the gap between the two sets of vases must, I think, be at least a quarter of a century.

I do not intend to express any definite opinion on these matters, nor shall I attempt to give any absolute chronology. Those better informed than myself on the Geometric style have given widely divergent answers, and indeed the dating of pottery in the half-millennium after 1200 B.C. is still a matter of much obscurity. What can be said with reasonable confidence is that the vases inside the tomb are Late Geometric, but definitely earlier stylistically than the material found by Evangelides.[7] In my opinion, the vases found outside the tomb are stylistically earlier than those inside.

The Fine Hand-made Pottery.

Here I am concerned only to show that there is a problem. Four of these vases, made with the greatest care, were found with the wheel-made vases above the Geometric cist, and a fifth was the only object associated with the Geometric pithos burial (see p. 265). No such vases were found in the Protogeometric and L.H. IIIC burials, and indeed, so far as I know, this fine ware seems absent from the Mycenaean series, though it may be a development from the coarser hand-made vases found in Protogeometric tombs in the Argolid. A similar vase was found at Argos in a tomb possibly contemporary with the cist burial at Mycenae.[8]

The question which seems worth considering is why a potter would be concerned to make such fine hand-made vases when the technique of the wheel was well known, and whether this type of vase has a purely burial significance. No answer seems possible as yet, but further investigation in the Argolid and elsewhere may eventually suggest one.

Pie Ware.

This ware seems to belong almost exclusively to Mycenae. It was identified, and christened Pie Ware, by Professor Wace.[9]

The characteristics of this ware are as follows. The clay is extremely coarse and gritty to the touch; its colour is a dull white-brown on the surface, with a pale mauve core; it has many impurities, and gives a sort of oatmeal effect. From the sherds found this fabric seems generally to have been used for fairly large open vases, the rims of which are decorated by a double incised wavy line, or some variation of this, thus suggesting its description of Pie Ware. The incision is not confined to the rim, but may appear on the body as well, and on the handle. The impressed decoration on the saucer from the Geometric cist burial does not conform with these characteristics (though it agrees with them in that the rim receives decoration); the fabric of this vase is, however, the same as that of other examples of Pie Ware.

---

[6] *AE* 1912, 127. [7] *Ibid.* [8] *BCH* LXXVII (1953), 260.

[9] *Mycenae* 84 and fig. 106b; Professor Wace is now of the opinion that he dated these sherds too late, and considers that they are contemporaneous with Geometric pottery. Cf. *BSA* XLVIII 60.

A number of such sherds were discovered in 1953, in and near the House of Shields (one has the upper part of a crude rope handle), and a few more were found inside the Geometric cist.

One other complete vase (PLATE 46, inv. no. 39–262, H. 0·065 m.) may be added to the above list. It is a small two-handled bowl, and was found in 1939 in a pithos burial south of the Perseia Fountain House; it has short dashes impressed or incised on the rim, and its fabric is typical of this ware.

Geometric Pithos Burial, Prehistoric Cemetery, Grave G. I

Found to the east of the Geometric cist tomb. The mouth of the pithos was closed by a large stone.[10] The pithos itself, hand-made, is of extremely coarse brown clay, the thickness of its walls being 0·016 m.; H. *c.* 0·40 m. The only object found inside was a hand-made trefoil-lipped oinochoe (inv. no. 53–335. PLATE 46). Details of this vase are as follows: H. 0·165 m. D. of base 0·120 m. Clay softish, with impurities; pink inside, dull light brown on the surface. Fabric and texture are not so good as in those found with the cist tomb, but it also has the 'pared' technique on the neck. The handle is made of three reeded bands. The base is nearly, but not quite, flat. I would not like to venture to date this burial, beyond suggesting that it is roughly contemporary with the Geometric cist burial.

Conclusions

Four burials are published here. One is L.H. IIIC, one is Protogeometric, two are Geometric—almost certainly of the eighth century. It remains to fill in the picture, so far as is possible, between the twelfth and the eighth centuries.

So far as concerns Late Geometric, it is clear that the cemetery area, in which stand the tombs of Aegisthus and Clytemnestra and the new Shaft Grave Circle, provides rich evidence for Late Geometric tombs and deposits.[11] Outside this area there have also been finds.[12]

Protogeometric vases were discovered by Professor Wace in 1920, when digging through Schliemann's dump south of the Cyclopean wall which abuts on the old Shaft Graves; these presumably come from a tomb within the cemetery area.[13] A few isolated pieces have been found elsewhere.[14]

Between Protogeometric and Late Geometric there is evidence, apart from some of the material here published, of only one tomb, which I take to be Middle Geometric.[15] I know of no objects certainly dateable to the ninth century.

Finally, Tsountas excavated a tomb 'near the Lion Gate', the vases from which he attributed to the Geometric style, and found Geometric sherds elsewhere.[16]

No doubt more material will be found, as there remains a considerable unexcavated area outside the citadel.

It would therefore seem possible that we have now evidence for continuity on this site from

---

[10] Cf. *BCH* LXXVII (1953), 260 and fig. 53, from Argos.

[11] Evangelides, *AE* 1912, 127 ff. Schliemann, *Mycenae and Tiryns* 103–4, 120, pls. XX, XXI, Papadimitriou (recent excavation).

[12] J. M. Cook, *BSA* XLVIII 30 ff. Schliemann, *Mycenae and Tiryns* 66–8. *Tiryns* I 145, fig. 9; 146, fig. 10. Wace, *Mycenae* 23, 27, 84, and fig. 106.

[13] *Protogeometric Pottery* 210 and pl. 28B.

[14] Schliemann, *Mycenae and Tiryns* 65, no. 26. *Tiryns* I 157, fig. 21. Wace, *Mycenae* 84, fig. 106.

[15] *Tiryns* I 136, fig. 8 and n. 1. Said to have been found '*an der Nordseite* μεταξὺ βορείας πύλης καὶ κρυπτῆς καταβάσεως'. It was presumably dug by Tsountas, who was digging in that area in 1893, *PAE* 1893, 8.

[16] Perrot and Chipiez, *Histoire de l'Art* VII 162, n. 1.

Mycenaean times onwards. It may be claimed that the existence of L.H. IIIC, Protogeometric and Geometric burials within the Prehistoric cemetery area stresses this continuity in a most important respect—burial customs; it seems clear also that the askos found in the Protogeometric tomb in the House of the Shields reflects Mycenaean tradition.

In spite of these indications, we must remain cautious. It must be remembered that the gap between L.H. IIIC of the twelfth century and Protogeometric of the tenth century is not yet filled, and that similarly there remains an almost unfilled gap between the Protogeometric and the Geometric of the eighth century. In fact from the end of the twelfth to the eighth century, presuming our chronology to be reasonably correct, the evidence is still meagre in the extreme.

The presence of the fine hand-made ware (unknown in any Mycenaean context) in the eighth-century Geometric tombs suggests at the least some culture that is intrusive into the tradition of an already existing culture, and that is, I think, confirmed by the presence of a number of hand-made vases in earlier, Protogeometric, graves in Corinthia and the Argolid.

In general, these burials, taken together with other evidence from the Argolid, show that there is no need to suppose that there was a sharp break in culture after the destruction of Mycenae, and suggest that there may well have been continuity, though complete proof of such continuity is still lacking. On the other hand, there is also evidence of the intrusion of some element foreign to the Mycenaean civilisation.

V. R. d'A. Desborough

MYCENAE 1939–1953

PART VI. THE CYCLOPEAN TERRACE BUILDING AND THE DEPOSIT OF POTTERY BENEATH IT

(PLATES 47–49)

PAGE

I. EXCAVATION OF THE 'NORTH MEGARON' 1950–54 267
    A. Excavation Report 268
    B. Analysis of Excavation Results 273

II. THE POTTERY FROM THE DEPOSIT 274
    A. Middle Helladic 274
    B. Late Helladic 274
        1. *Painted Ware—by Designs and Shapes* 274
        2. *Monochrome Ware* 280
        3. *Unpainted Ware* 281
        4. *Coarse Ware* 283

III. SMALL FINDS 284
    A. Terracotta 284
    B. Other Materials 284

IV. ADDITIONAL NOTES 284
    A. Smoothed and Polished Finish 284
    B. Metallic Influence in Pottery Techniques 285
    C. The Interrelation of Certain Patterns 286
    D. Notes on Pottery from Related Areas of the Site 286
    E. The Human Skeletal Material from the Well (by Dr. J. L. Angel) . . 288

V. COMPARISONS WITH OTHER POTTERY DEPOSITS OF SIMILAR DATE . . . 289

VI. CONCLUSIONS ON DATING OF BUILDINGS, ETC. 291

I. EXCAVATION OF THE 'NORTH MEGARON' 1950–1954 *

THE Cyclopean Terrace Building [1] lies to the north-west of the Lion Gate on the northern end of the Panagia Ridge and faces almost due west across the valley of the Kephissos and

---

* I am deeply indebted to my father, primarily for the opportunity to excavate at Mycenae on this site during four seasons, and for the suggestion that I should undertake to publish this material. Without his constant advice and encouragement many difficulties would have proved insuperable. The theories and conclusions put forward here, though the result of discussion both on the site and later, are, however, in their omissions and failings my own. My thanks are due to the Craven and George Charles Winter Warr Funds at Cambridge for grants with which to continue this project, to the Ephor of Argolis, Dr. I. Papadimitriou, and his staff, to the British School at Athens, and to my mother, who has continuously lent invaluable assistance, both in discussion and in the technicalities of preparing material for publication. Finally, I wish to thank most heartily the architects who have helped me on this site, particularly Mr. Nevil Chittick and Miss Marian Holland for their excellent working plans and Mr. Herschel Shepard for remeasuring and redrawing the whole area for the publication plans and sections. I have also to thank Dr. J. L. Angel of Jefferson Medical College, Philadelphia, for his note on the skeletons from the well.

[1] See Survey, FIG. 1, p. 230.

modern main road from Corinth to Argos. It lies just below the 200 m. contour line, and one terrace below the houses excavated in 1950–51 [2] by Dr. Papadimitriou and Mr. Petsas to the east at the same end of the ridge. The area contains a complex of buildings, both successive and contemporary, and in view of the discovery of structures both to the south-west [3] and, by the Greek Archaeological Service, to the north-east it is likely that this whole slope was covered by a portion of the outer town of Mycenae. This report will deal only with the structure to which the name Cyclopean Terrace Building was originally given, the so-called 'North Megaron', supported by the heavy main terrace wall.

The excavation of this structure was begun in 1923.[4] The main terrace wall was cleared and two L.H. IIIC burials discovered in the top of the fill in the south room. In 1950 it was decided to attempt to clear this building entirely in an endeavour to find out its date and purpose. The clearing was not, however, substantially completed until the close of the 1953 excavation season, and this report presents the available evidence for the date as determined by the pottery found beneath the building; the purpose is still a matter for study, though various tentative conclusions can be put forward.

A. Excavation Report [5]

In 1950 [6] the north room was cleared and a deposit of L.H. II–IIIA pottery discovered under an early floor beneath the building. Mr. Sinclair Hood in 1951 made another small test in the section baulk that had been left in the north room as well as trials in other parts of the site. In 1952 [7] work was started on the south room, and it was hoped to clear this also and find the continuation of the deposit, as the floor beneath which it was sealed clearly extended under the south wall of the north room. The nature of the fill, however, its great depth, and the exigencies of other parts of the site were such that the deposit was reached only in a narrow stretch against the north partition wall. Therefore in 1953 it was determined to complete the work and a selected group of workmen was chosen for the difficult task. Thus at last the south room was cleared as far as the dangerous condition of the east baulk and the difficulties of removing the stones and earth would allow, the full extent of the deposit was established, and the internal examination of this portion of the structure completed. In addition, this manuscript was checked on the site and final investigations undertaken during the excavations of 1954.

The building (PLATE 47) consists of a heavily built terrace wall running north and south for some 16 m. in quite good condition on its inner face, and another north–south wall parallel to it some 4·00 m. to the east, preserved in the north room to a height of about 3·00 m., but robbed almost to the foundations in the south room. Owing to the extreme height of the baulk, it was not possible to clear back to the outer face of this wall in the south room. The face and foundation course are clear, and the south-east external corner is intact. The external line of the wall can thus be determined with considerable probability. Between these north–south walls run two east–west walls; one at the south end and one unbonded about 7·50 m. from the south end and 5·00 m. from the north end of the structure, dividing it into the north and south rooms, of which the north is considerably the smaller. This dividing wall is not accurately at right angles to the north–south walls. Of these cross walls the southern has been cleared completely only on its inner face, where it stands to a height of about 2·50 metres. Above this it had been robbed. There is no sign of any wall closing the north end of the structure, though repeated tests were made in 1950–51. The area has, however, been greatly disturbed, and there are many large stones scattered about. The foundation course of the Terrace Wall juts out at the north end about 0·50 m. farther than elsewhere.

---

[2] FIG. 1 (2). *PAE* 1950, 203 f.

[3] *ILN* 23–12–1950, 'Agamemnon's Bar'.

[4] *BSA* XXV 403, pl. LXII.

[5] See throughout the plan and sections, FIGS. 11 and 12.

[6] *JHS* 1951, 255.

[7] *BSA* XLVIII 16.

The walls are of heavy rubble masonry of the ' Cyclopean ' type and are all well over 1 m. thick, the terrace wall being over 2·50 m. thick (3 m. including the foundations) at the north end. None of the walls is entirely founded on rock. The west terrace wall and the central cross wall rest on earth, while the south and east rest on rock and earth above the rock as circumstances of level dictate. The west wall and the east in the south room for most of their length have foundation courses of greater width than the wall itself. The east wall in the south room appears to have proved unstable as first constructed, for in the middle the foundation course was built up in front of the wall itself to a considerable height.[8]

This is therefore a substantial construction, but no floors were found to go with it and the rock is not such that the building can have had a roughly dressed rock flooring with a thin mud coating, as was the case in the unplastered parts of the basement of the House of Sphinxes. Two other facts require notice. First there is apparently no means of access whatsoever to the south room. Secondly, there is a drain [9] lined with Plesia clay leading from the earth fill behind the east wall through the wall diagonally down into the south-east corner of the north room. There is no sign of any channel leading out of the room again. The water must therefore have been intended to find its way across the rock shelf, which slopes down to the west here, and out at the north end. It is clear that the presence of this drain indicates that the room was not intended for habitation, and the purpose of the drain must have been to prevent, against the east face of the east wall, the collection of water which might weaken and destroy it. It has not been possible to tell whether a similar drain was ever built in the south room.

If, then, these two rooms were not habitations of any kind, what purpose can be found for them? The most likely supposition is that this is merely the massive foundation terrace for a building above, which has completely perished or was never completed. The possible lack of a wall at the north end, however, remains something of a problem.

The heavy fill of stones found within the building may be a further indication of this function. Below the plough soil both rooms were filled with rough limestone boulders and stones, some of them of such great size that their presence was obviously intentional. The pottery found in the fill below the contaminated surface layers consists mainly of pieces of kylikes and heavy pithoi, and was of a general L.H. IIIB date with no obvious later pieces. In the north room the fill was homogeneous, but in the south room not only were there two L.H. IIIC burials [10] in the uppermost level but it contained a section of crude masonry.[11] For this, which ran at right angles to the east wall from about its base to a height of about 1·50 m., the most probable explanation is that it was built to help in the filling of the large south room with its rough limestone fill. The so-called wall had a face only on its north side, and the blocks were carelessly put together. It appeared merely to serve as a partial support for the fill to the south of it. If small supporting walls of this type (such as are frequently constructed in excavation dumps) were built, it would have been possible to fill the room in sections, and this would undoubtedly have resulted in a closer, more stable fill. The wall found in the clearing of the fill may well be the only one of several that has survived the weight and strain of the upper fill, or it may have been needed to provide extra support over the domestic pit through the floor beneath it. The size of stones in the fill varied considerably from one area within the room to another.

---

[8] See section A–A, FIG. 12.

[9] See plan and section, FIGS. 11–12.

[10] *BSA* XXV 403 f.

[11] See section C–C, FIG. 12.

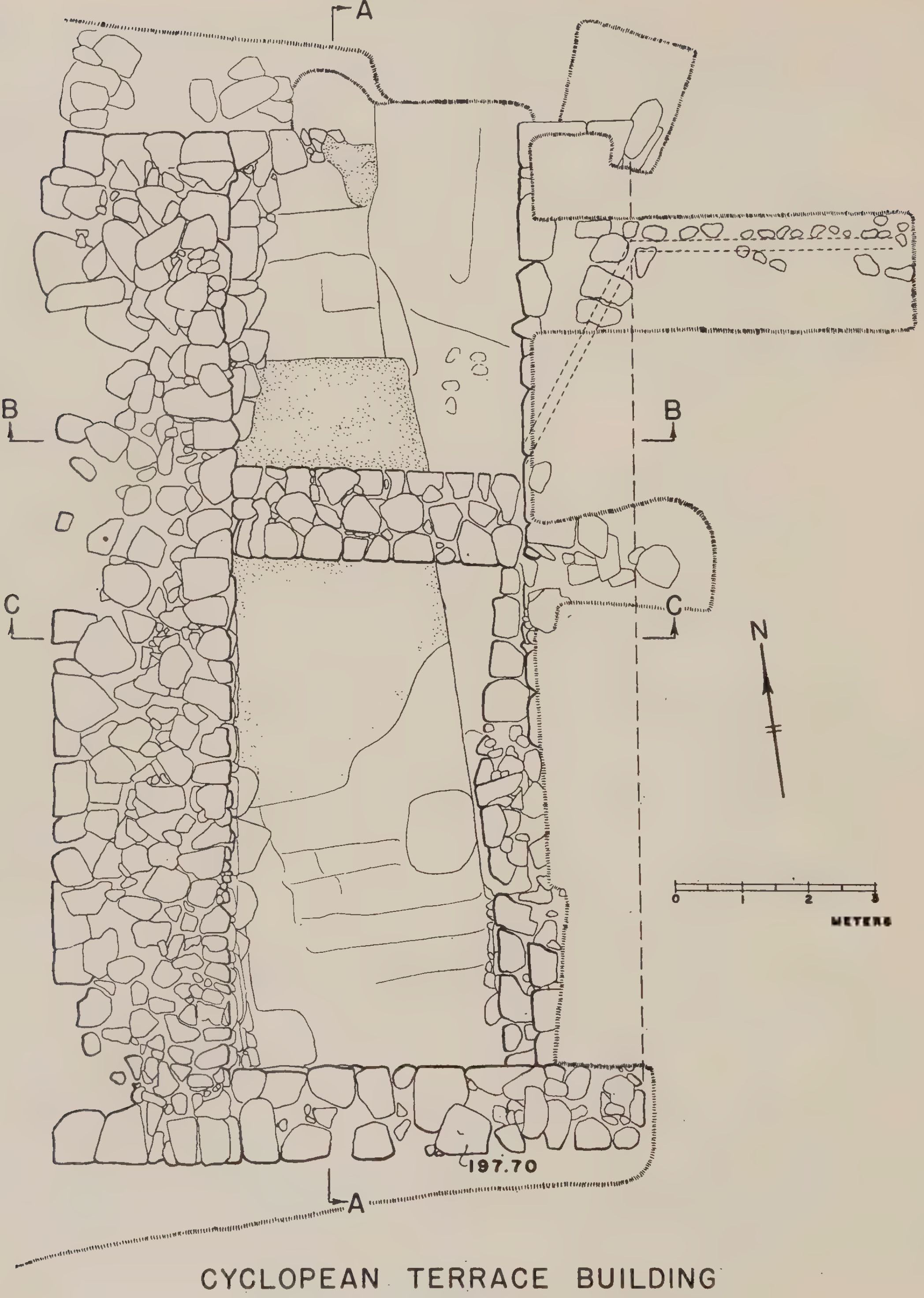

A
B
B
C
C
N
0
1
2
3
METERS
197.70
A
CYCLOPEAN TERRACE BUILDING

Fig. 11.—Mycenae: Cyclopean Terrace Building, Plan.

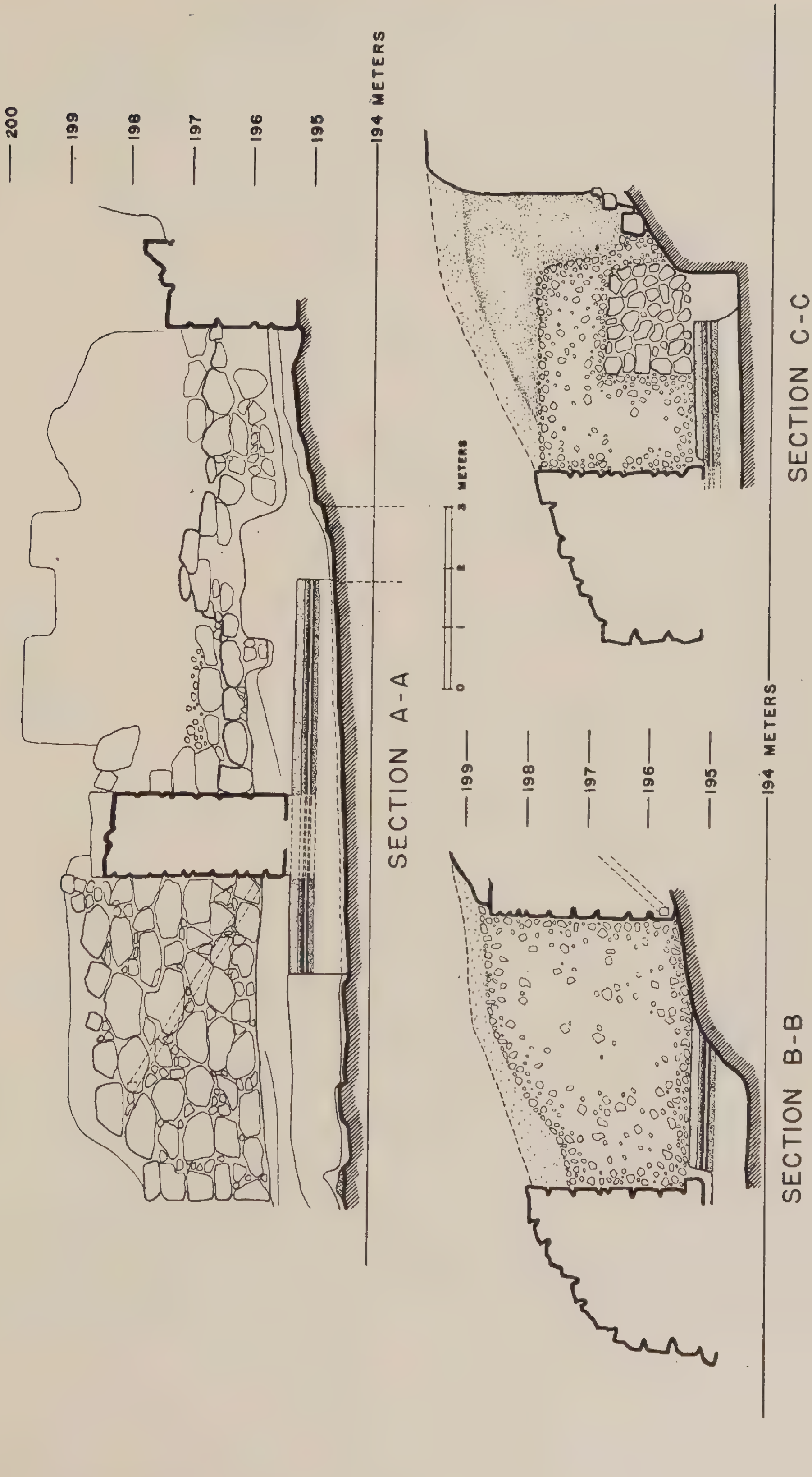

200
199
198
197
196
195
194 METERS
SECTION A-A
0
1
2
3 METERS
199
198
197
196
195
194 METERS
SECTION B-B
SECTION C-C

Fig. 12.—Mycenae: Cyclopean Terrace Building, Sections.

The remains below this structure present more complex problems. The rock shelves down steeply towards the west. Most of the east wall is built upon it, but west of this it sloped and had been cut for previous building to such an extent that the builders of the Cyclopean Terrace Building were forced to ignore it. In the north room it slopes down westwards for about 2 m. from the east wall and then drops sharply about 0·80 m. West of this it is cut almost horizontal, though there are east–west cuttings leaving an irregular raised strip at a point about 1·50 m. from the north end of the building. This doubtless had some connection with an earlier building founded directly on the rock. To the north of this strip a small area of plaster floor was found directly over the rock and on top of it some much blackened ashy soil containing sherds of L.H. II date.[12]

At the south end of the north room the rock shelf was overlapped for about 0·30 m. at the edge by a heavy plaster floor of several layers which extended from the rock shelf to where it had been cut through by the foundation trench for the west terrace wall, and for about 1·50 m. north from the south wall of the room under which it runs. The north edge of the floor was a clean straight edge. It is most likely that this was the end of the floor where it abutted against a wall later destroyed. The unusual straight edge may, however, indicate a cutting. Beneath the floor was a deposit of household pottery of an unusually excellent and decisive character. This floor is in three thick layers easily distinguished by their colour. The lowest of the three is orange in colour and extremely hard. It is about 0·06 m. deep, as is also the second layer which lies above it, with a thin barren-earth layer between. This second layer is of white plaster with a high proportion of lime and was not very substantial. The uppermost of the three layers is pink in colour and about 0·08 m. thick. It is laid on a layer of small pebbles, and in the earth separating it from the floor below were some sherds exactly similar in date to those of the deposit itself.[13] Above the floor is a layer of packed earth [14] about 0·15 m. thick, with pebbles and some large stones upon which the central partition wall is directly built. This does not appear to be a true floor, but is most likely the level of the ground, at the time of the building of the walls, which became packed during this process. Below the floor the deposit consisted of soft rich earth with scattered patches of plaster, ash, and clay. These were not floors or occupation levels of any kind, but patches, in the debris of the deposit, that had accumulated along with the pottery. It is most likely that this area was used for the accumulation of household refuse from some nearby building.

In the south room the rock shelf is much less wide than in the north room. It runs diagonally south-eastwards, projecting west of the wall only for about 2·00 m. at the north end. South of this the wall is built on the very edge of the shelf, and at the south end on a heavily built foundation of several courses in front of it.[15] The wall itself is preserved in only one course above the foundations. Below the shelf the rock drops sharply and almost straight for 1 m., and then continues west horizontally to the west terrace wall.

The heavy floor extends under the north wall of the room, which rests on the packed earth above it, and at the west side runs south for about 3·50 m. It is not, however, cut through for the foundation trench of the terrace wall. The south edge is roughly straight for just under 2·00 m. from the west wall, and then the edge runs irregularly and diagonally back to the rock ledge at a point 1·00 m. from the north wall. The reason for these irregularities is not clear, but, as the deposit is very shallow at this point, it is possible that the floor and deposit were destroyed in the construction of the fill and its semi-built masonry which lay above the floor at this point. Right against the rock ledge the floor was supported by stones, and there was a pit 0·50 m.

---

[12] Additional Notes D 1, p. 286.

[13] Additional Note D 2, p. 286.

[14] Additional Note D 3, p. 287.

[15] See section A–A, FIG. 12.

across through the floor, lined with stones and containing soft, dark earth and pieces of plain, heavy pottery, including a large section of pithos.[16] This probably had some domestic function. The rock south of the floor shelves up gently by steps to the south. There is a shallow depression, probably natural, in the south-west corner.

Against the east wall, at a point about half-way along it, was found a deep shaft cut down into the rock. The shaft is roughly oval in plan and measures about 1·10 m. by 1·25 m. The heavy fill came right down to its opening, but just above it in the fill were the skeletons of three women, one with a bronze ring, and of a very large dog.[17] In the shaft itself at a depth of 1·10 m. were two other skeletons, one with a bronze ring, apparently not laid out, and below them the remains of eight other skeletons at various depths. Fragments of a bronze brooch and a pair of bronze tweezers were found with these skeletons. The shaft continued downwards to a depth of 6·25 m., and has not been entirely cleared, though at this depth the soil and the rock sides of the shaft seemed to indicate that the winter water level had been reached. The pottery from the shaft was remarkably uniform, being L.H. IIIA and IIIB [18] at all levels. It would therefore seem that this shaft was filled in at one time and not allowed to fill up gradually over a considerable period. The presence of so many skeletons also substantiates this conclusion. It is possible that it was dug in search of water (for the great depth precludes the likelihood of its being purely a *bothros*), but perhaps insufficient was found and the cutting was filled up at the time of the construction of the Cyclopean Terrace Building itself.

B. Analysis of Excavation Results

The primary fact that emerges from the excavation is that there have been at least three buildings on the site:

1. The building to which the floor above the rock at the north end and the east–west rock cuttings belong. This was apparently burnt, and it has occupation- and destruction-level pottery of L.H. II date.

2. The building to which the heavy floor sealing the deposit belongs. This will be dated by the deposit, which appears to be a fill used to even up the rock level before building, and by pottery found in and on the floor. We cannot tell how far west the room extended, but the east wall probably ran along the rock shelf about 0·50 m. from its edge at the north and on the edge of the shelf at the south, using the rock itself as the lower part of the wall. Against the ledge a domestic pit was lined with stones. The deposit below the floor was here strengthened with stones, possibly because the joint with the rock face would be weaker and more likely to subside than against a wall. The north and south walls probably ran along the edges, as they were found, of the floor, which would make angles of roughly 90° with this supposed east wall. The building would thus have had a slightly different alignment from the later Cyclopean Terrace Building. The fact that all the walls are now missing is in no way extraordinary, as the stone was doubtless taken for re-use in the superimposed building (3, below).[18a] The structure here discussed may merely have been superseded by the later more elaborate building. No reason for the destruction is apparent. The well as such probably goes with this building, as it lies just outside the supposed south wall.

3. The Cyclopean Terrace Building itself. This was built over the existing remains, but the stone available on the spot from earlier walls was used. The well, which was not perhaps

---

[16] Additional Notes D 5 and 6, pp. 287–8. [17] Additional Notes E, p. 288. [18] Additional Notes D 4, p. 287.

[18a] The early building of the ' South Megaron ' in the same area, where the vast collection of stirrup jars was found, had no walls remaining.

very effective, or may merely have been in the way, was filled in and the Cyclopean walls built, the foundation trench for the west terrace wall cutting through the previous heavy floor at the north. The east wall, at least at the north, was made secure against water pressure by a drain. The north wall almost certainly existed originally, or the fill of the north room would not have been stable, and this is not in keeping with the precautions taken in the south room to make the fill as stable as possible. Finally, both rooms were filled to a depth of about 3·00 m. with large lumps of limestone. So much remains. The superstructure may never have been completed or may have been entirely of crude brick and wood. In any case no trace is now left, though undoubtedly it extended originally eastwards over the upper terrace, as did the superstructure of houses on the ridge south of the Tomb of Clytemnestra, such as the House of Shields, to which in particular the Cyclopean Terrace Building bears a considerable resemblance. It is evident that the superstructure had disappeared in L.H. IIIC times, for two burials of this date were made in the fill at the upper terrace level.

II. THE POTTERY FROM THE DEPOSIT

A. Middle Helladic

Minyan, grey. Two fragments of rim; squared, offset, with metallic treatment.

Polychrome. Two examples.

Neck of jar, well shaped with squared lip. Red and brown bands at base of neck, red paint on rim. Orange clay with grit, burnished.

Sherd, unfinished inside; grey clay fired orange, polished outside probably by burnishing. Wavy lines in dark maroon paint.

Matt painted. Four examples.

Two bases of handles from large pots, one handle, one sherd of closed pot. Buff clay with sand, smoothed surface.

B. Late Helladic

1. *Painted Ware*

Classification by Design [18b]

Bird. One large example (PLATE 48, *a*, 4) and possible fragments from another. F 7 sitting type with raised wing.[19] On krater, rather globular, with horizontal, rounded lip. Lightly polished surface outside, smoothed inside,[20] semi-lustrous paint.

Lily. One example. F 9 type C. Teacup or saucer, possibly votive miniature; simple curve outside, rim curving inwards with slight flange. Dotted design on rim and trace of some pattern inside. Slipped buff on pink clay, polished outside, smoothed inside. Thick red paint. L.H. II.

Papyrus. One example. Possibly F 11 : 12 but may be Flower pattern of extraordinary type. Open pot, shape unidentifiable. Polished.

Palm I. One example. F 14 : 5. Ephyraean goblet, part of rim, angular, offset. Well polished inside and out. Red paint. L.H. II.

[18b] For the sake of convenient reference the order of motifs is that used by Furumark. The only dates given are for L.H. I and II examples.

[19] Cf. *Argive Heraeum* II 80, fig. 12, fish sherd of similar style.

[20] See throughout Additional Note A, p. 284.

Palm II. Two examples. F 15 : 8, 11. One closed pot; one bowl, rim. Slipped and lightly polished. Simply but well drawn.

Rosette. Three examples. F 17, parts of large rosettes. Ephyraean goblets. Two with worn black paint, one orange on buff. Well-washed clay, probably slipped, polished in and out. L.H. II.

Flower. *C.* twenty examples (PLATE 48, *b*).[21] F 18.

Voluted: type 4, three examples; type 13, 14.

Hybrid: two excellent examples, type 33.

Unvoluted: one example, type 62, and examples of general early shoulder types, one very well drawn in simple lines of diluted paint; one alternating with whorl shell, another with vertical quirk.

There are also dubious examples of probable hybrid types, though they are possibly whorl shell type with central torus. Stirrup jar, kylix, krater, etc. Mainly slipped and polished, with lustrous paint.

Multiple Stem and Tongue pattern (PLATE 48, *c*, 1–2). Five examples. F 19 : 8, 17, 20, 21. Three sherds from stirrup and piriform jars, slipped and polished outside, with black paint; two from open pots, with very fine buff clay, worn black paint.

There are also dubious examples, possibly chevron. Sherd from large heavy pot, two bands with beginnings of vertical stripes above. Sherd from heavy pot of Palace Style, clay with much coarse sand, slipped and smoothed; two thin bands with parallel chevrons very well drawn below.

Cuttlefish. Two examples: (*a*) From large open pot (PLATE 48, *c*, 3). Motif unparalleled, horizontal arms with attached pointed tentacles. Buff clay with some sand, polished in and out. Flaking black paint. (*b*) From large closed pot (PLATE 48, *c*, 4). Horizontal with two arms coming in below body, somewhat as F 21 : 5. Speedily and decisively drawn in dilute brown paint on buff ground, added white dots. Grey buff clay with sand, polished outside only. Signs of burning.

Argonaut. One example. F 22, tentacles only, not curled under. Ephyraean goblet. Fine clay, polished. L.H. II.

Whorl Shell (**Murex**). Twelve examples. F 23 types 1–5, three with sea anemone filling ornament (PLATE 48, *a*, 5), one alternate with unvoluted flower; usually very well drawn. Kylix, krater, closed pots. Slipped and polished fabrics.

Rock Work I. Two examples. F 32 type 5. Alabastra. Polished fabrics. One pink slipped buff with brown paint; the other grey with orange paint and accessory rosette.

Also rim of open pot with inverted pattern of continuous rockwork, type 5; ? canopy hybrid, ? pendant.

'U' Pattern.[22] Two examples. The one F 45 type 3. Rim sherd, probably bowl; polished in and out, black paint. The other with internal *zwickel* resembling quirk derivative; shoulder of piriform jar. Red paint, smoothed out only.

Spiral (PLATE 48, *d*). *C.* fifty examples. Mostly very well drawn, some fine, frequently with *zwickel* (F 46 : 43) or other filling ornament; two with curved stem (F 49 : 5, 20); two with added white on brown paint. Mug, tea cup, rhyton, bowl, straight-sided cup (monochrome inside). Many in red paint on highly polished buff; others in black paint on greyish clay. All with fine clays; very well finished pots.

Notable pieces. There are fragments of at least three extremely handsome mugs. They are in very hard-fired clay with metallic treatment of the rim and waist in a series of ridges.

---

[21] Cf. *Chamber Tombs*, fig. 8.

[22] Additional Note C, p. 286.

The paint is thick and lustrous, varying in the firing from black to red. These are L.H. II–early IIIA. The spiral pieces in general range from L.H. I to IIIA.

Quirk.[23] Five examples. F 48 types 5, 6, 7, 8. One alternate with unvoluted flower; see also under ‘added white’. Shapes, both open and closed pots, unidentifiable. One rim piece.

Wavy Line.[23] Two examples. F 53 : 2. Ephyraean goblet. Very elaborate and highly finished, L.H. II. F 53 : 6. Probably mug with notched straight lip. Orange paint on pink clay; polished in and out.

Diaper Net. Two examples. F 57 : 2. One shape indeterminate. Polished inside and out. Paint very worn.

Closed pot. Polished outside on slip; fine clay with some sand. Worn brown paint.

Parallel Chevrons. Three examples. Accessorial of F 58 type 2 or 3 and 4. Handle of jug. Thick but fine clay with sand added. Very lustrous paint.

Ephyraean goblet. Base of handle. Slipped and polished outside, fine well-washed clay. Very lustrous paint. Rim, fine pink clay with a little sand. Slipped and polished inside and out. L.H. II.

‘N’ pattern.[24] Three examples. Sherd of F 60 type 2 (PLATE 48, *c*, 9). Bold running design in dilute paint. Polished inside and out.

Rhyton (PLATE 48, *a*, 3). Five fragments of at least two vases. Rolled lip of metallic character. Fine clay with some sand, polished in and out. Semi-lustrous black paint; one sherd very worn and faded. L.H. II. *Cf.* B.M. A 732 (wrongly classed as L.M. III), which is extremely similar to these in execution and style. The design of ‘double hooks’ is of the same repetitive nature as the ‘N’ pattern, and is of the same stylistic group. Moreover, the fabric, polish, and paint are similar. The Knossos example comes from a house [25] which contained a goblet which is a L.M. II imitation of Ephyraean ware and was also dated to the L.M. III period. It is quite possible that the rhyton is an actual L.H. II mainland import.

Tricurved Arch. Four examples. One net with filling ornament of centre dot; others F 62 : 17 and similar to 27. Two cups, one closed pot. Slipped and polished. Kylix, with net and interlocking-U filling ornament. Slipped and polished.

Hatched Loop. One example. F 63 : 2. Open pot. Slipped on thick but fine clay. Paint black, now matt and crackling.

Also one sherd of hatched loop or concentric arc. Orange paint. L.H. I–II.

Foliate Band.[26] Nine examples. Vaphio cups. Two examples. F 64 : 4. Very fine well-washed clays. Polished in and out. Brown paint. L.H. I–II.

Piriform or stirrup jars. Eight examples. One definite stirrup jar. Shoulder bands of F 64 : 13, 16, 19 or similar combined with linear decoration. Slipped, good clays. Red or warm brown paint; two sherds very worn. N.B. Some of these examples may be of ‘curved stripe’ pattern.

Kylix or bowl. Two examples. Type 12–13 but of a more linear character.

Scale Pattern. Eleven examples. F 70 : 1, 2, 7, 8; with internal dots, circles and crescent (PLATE 48, *a*, 2). This last type is attributed by Furumark to L.H. IIIB, but the fabric, treatment, and context, which is otherwise throughout slightly earlier, lead one to contest this. Kraters, open pot, and indeterminate sherds. Smoothed and polished wares, fine fabrics. Blackish to warm brown paint.

Stipple. Sherds from *c.* twenty-two vases. The paint is either red or black (a result of the firing, but probably intentional) and the stippling mainly rather concentrated, though two sherds are very worn. Mugs, tea cups, possibly one kylix. Clay very fine pink or grey; well polished outside, some also inside. Mugs smoothed inside. Accessory ornament of fine line-groups on both mugs and tea cups. One mug (PLATE 49, *d*) has a ridge at the waist, another ridges at the lip.

---

[23] Additional Note C, p. 286.

[24] Additional Note C, p. 286.

[25] *BSA* VI 73 f.

[26] Additional Note C, p. 286.

Irregular Linear (as on terracottas). One example (PLATE 48, *c*, 5). Bowl or dipper; deep, straight-sided with rounded base. Whitish buff clay; slipped and polished. Red brown paint. Oblique parallel stripes in intersecting panels.

Palace Style. This is in reality a group of motifs comprising, from this deposit, flower or reed stems with 'comma' filling ornament or dots, rock work, and tongue pattern; but they are closely linked in treatment, and are best considered as one.

Five examples. The fabric is particularly distinctive, being a rather gritty clay, self-slipped with a thin wash of the same clay without sand, smoothed and rather soft, giving much the impression of the coarse domestic wares. The paint is heavy and dark and not usually lustrous, perhaps owing to the powers of absorption of the base clay. L.H. II.

Added White. Six exx. (PLATE 48, *c*, 4, 10, 11). Two from bowls with an internal band with zigzag and quirk applied in dilute white wash;[27] one monochrome red on the outside with a white line. Applied detail on cuttle fish and spirals (see above).

Cretan?. One fragment. Good fabric, polished inside and out. Orange paint with white spots on black ground.

Linear Decoration

A large proportion of the painted fragments bear no decoration except of an entirely linear kind. This type of decoration was extremely popular among the Mycenaeans, and was an important accessory type of decoration on vases of many kinds, as well as in some cases being the only decoration used.

The following shapes with linear decoration only surviving can be identified from the deposit:

Stirrup and Piriform Jars. Eleven examples from the lower portions of the vase; one example from shoulder with broad bands and thin lines; three examples from stirrup jar necks and false spouts, with lines at base of necks and rims.

See also under coarse ware.

Mugs. Nine examples of bases with concentric circles, and of rims with linear decoration (PLATE 49, *d*).

Cups, Small Bowls, Dishes. *C.* forty examples. The cups have mainly fine stripes of equal breadth between bands. One miniature saucer with fine lines in and out and band at rim (PLATE 49, *a*).

Kraters. Surprisingly few examples. Eight identifiable sherds from large open pots. Two bases from very spread jars with simple ringed base.

Alabastra. One example. Two small stripes from shoulder area.

Rhyta. Sherds from three examples. (*a*) Thick and thin bands in very lustrous brown paint. (*b*) Much worn; otherwise as above. These are possibly from the lower portions of rhyta similar to 'N' pattern examples (see above p. 276). (*c*) In quasi-monochrome technique (see below). Heavy; slipped and polished (PLATE 49, *c*, 4). Also a rim from a similar less heavy vase.

---

[27] Cf. *BCH* LIX 337, fig. 1; *FdD* V 19, figs. 87, 89; also Tell-el-Amarna examples.

Kylikes. *C.* twenty examples. Stems and bases; bases slightly concave; some polished on top. The majority have three bands of paint with reserved areas between, though at least one example has only two. The stems have bands of paint, even in width, usually with a group of three thin lines at the top (PLATE 49, *a*).

The linear decoration[28] is mainly notable for the fact that except in two categories of vase it is entirely of a simple undeveloped kind (PLATE 49, *a*, *c*), and falls into two basic classes. The large vases are decorated with one or more broad bands of even width. These bands may have one edge accentuated, but they are not accompanied by thinner lines. Smaller vases have linear decoration in the form of groups of thin lines of even width and evenly spaced. The kylix stems have equal bands with thin lines at the top, but not the two widths combined into groups. Only cups, the rims and feet of mugs (PLATE 49, *a*, *d*), particularly those with stipple decoration, and one other sherd have developed line groups. On the cups this decoration is of a developed and carefully controlled kind. The outer bands are distinct, and the very fine lines that they enclose are carefully and evenly drawn. On the mugs, however, this decoration is still in the more rudimentary and experimental stage. Both the bands and the lines are in paint of uneven consistency, and it is sometimes hard to determine the exact composition of the line group. This same indecisive linear style occurs on the large heavy rhyton (PLATE 49, *c*, 4), where it is clearly a derivative of monochrome ware. Many of the brown monochrome sherds have a stripey effect owing to the uneven consistency of the paint on the brush (PLATE 49, *c*, 6). This was obviously noticed and utilised by the Mycenaean painters as a decorative effect in itself. Various stages in the development of this technique can be noted (PLATE 49, *c*). Sherds from a rhyton from Tell-el-Amarna now in Cambridge[29] show the next stage, while the lower portion of the octopus rhyton[30] from the House of the Wine Merchant (in the south of the Cyclopean Terrace Building area) shows this decoration as almost a line group, and similar to that of the mugs from the deposit. It is notable that the shape of a rhyton lends itself readily to experiment in this type of decoration. The stems of kylikes also proved a field of linear experiment. Several monochrome kylikes show the same stripey effect, but the shape was not as suited to the type of broad decoration of this kind so popular on rhyta.[31] The effect was therefore transferred to the system of bands and lines which readily became popular. These bands have been thought to imitate the ridges on grey Minyan goblets. This is indeed possible, and it may well explain the popularity of this extraordinary decoration. Certainly the line groups at the lip, base, and waist of mugs replace the ridges also found there. The bands on kylikes were in the first stage the result of leaving small reserved areas in otherwise monochrome decoration,[32] but later the reserved bands were of equal width with the painted. These later developed into full line groups, as did the bands on vases of all types through the 'dilution' process.

The stages in the development of linear decoration as exemplified in this deposit are thus somewhat inconsistent. This does not, of necessity, argue a very wide range of date, for in a centre as large as Mycenae in a period of transitional decoration a wide variety would be found. Certain shapes would be likely, through their shape, function, and popularity, to develop more quickly than others. It is noticeable that the most advanced are all drinking-vessels, cups, mugs, and kylikes.

---

[28] *Cf.* Furumark, *MP* 498 f., 506 f.

[29] Cambridge, Museum of Classical Archaeology TA. 58, 59, Amarna 35/382, 415, 492, illustrated *City of Akhenaten* III, pl. CIX 3.

[30] *BSA* XLVIII, pl. 11*b*.

[31] Experiments in this scheme are seen in two examples (PLATE 49, *c*, 1 and 5), one from the well and one unstratified.

[32] B.M. A 865; *BMC Vases* I, pl. XIV.

Classification by Shapes

These have already been noted under the various patterns where identifiable, and this list is for cross reference only. In only a few cases are fragments sufficiently large to determine exactly the type within the general form, and a great many fragments cannot be placed at all. The order is again that of Furumark.

Pithoid Jar. Piriform. *C.* twenty-two examples, including two bases. Linear accessory decoration and shoulder patterns of quirk, foliate band type.[33] These jars are a very common feature of L.H. IIIA deposits.

Palace Style: five examples of large jars; all of coarse fabric.

Squat Jar. Alabastron. Three examples, shape F 84, rounded. Probably L.H. II or survivals. The angular types which are often found in L.H. IIIA deposits have not been identified here.

There are also two handles, probably from alabastra, with knobs at the apex.

False-necked Jars. Stirrup Jars. At least seventeen examples, including two handles (two with reserved triangle as decoration at the top). There is an obvious overlap with piriform jars in the identification of many parts of the vase. Linear accessory decoration, shoulder patterns of flower, foliate band, chevron of rather hybrid linear types.[33a] One very interesting sherd appears to combine in a very linear form derivations of tongue pattern, semi-circles, and foliate band (PLATE 48, *b*). The individual character of the patterns has been lost in the decorative problem.

Conical Rhyton. Five examples, one very heavy and large. 'N' pattern, spiral, and stripes; always particularly well finished.

Cups. Shallow, 'Tea Cup'. *C.* thirteen examples. Probably F 218, 220, 237; three definitely with high handle. Foliate band, tricurved arch, spiral, lily, stipple; accessory stripes. Generally very fine; very highly polished with lustrous paint. L.H. II–IIIA, early.

Straight-sided. *C.* ten examples. Possibly F 221, 230. Spiral, whorl shell, flower, palm, accessory stripes; also bands with added white. Polished, red paint. Notable for straight lips with no rim.

Cylindrical. Vaphio Cup. Two examples of F 224. Both with early foliate band decoration. Typical L.H. II.

Mug. *C.* twenty examples. F 225, first type. All with stipple or spiral; linear accessory decoration at rim and particularly on base. Metallic ridges at rim and waist. Very well finished. L.H. II–IIIA, early.

Stemmed. Ephyraean Goblet. Six examples. F 254. Chevron, argonaut, rosette, palm. All with very fine well-washed clay, highly polished. L.H. II.

Kylix. *C.* forty examples, including two examples of handles only, of '?' type. Probably F 256–7. Flower (very common), whorl shell, foliate band, net, possible stipple; often with fine lines around top of stem. Also striped stems and bases. Fine clays; polished bowl (inside and out), stem and top of base.

Krater. Five certain examples, *c.* ten probable. Bird, tongue, scale, chevron, flower, cuttlefish, spiral. Polished inside and out. Heavy angular rims.

Closed Pot. Jug or amphora. Five probable examples and one certain from neck. All polished outside only. Scale, palm, whorl shell, tricurved arch, accessory stripes. Brown paint.

Three heavy, rounded, vertical handles.

---

[33] Additional Note C, p. 286.

[33a] Additional Note C, p. 286.

Unusual pieces. One miniature saucer (PLATE 49, *a*). One probable lid.[34] One bowl or dipper, tall with rounded base (PLATE 48, *c*, 5).

Handles. Those that cannot be definitely assigned are the vertical flat handles which are painted only on the outside, have a small reserved triangle at the top, or have simple curvilinear designs. They may come from stirrup jars, jugs, or large cups and bowls. *C.* twenty-five examples.

Indeterminate. *C.* forty sherds, of which neither the design nor the shape is recognisable. Some very much worn.

2. *Monochrome Ware* (PLATE 49, *c*, 6 and 7)

The monochrome ware is that in which the whole pot is covered with paint, or in which the whole of either the inside or the outside is so covered. There is a considerable quantity of this ware in the deposit, though some of the handles and bases (particularly bases possibly from piriform jars) included below may, of course, come from the monochrome portions of vases decorated in some other fashion. The fragments of monochrome proper can, however, usually be distinguished from portions of decorated pots by the type of paint and the degree of finish.

Colour. Red is by far the most common colour of the monochrome ware, and constitutes about half the total. The quantities of brown and black are about equal. The red is always well applied with very little trace of the brush strokes, and is finished with a high polish. The brown includes an attractive pale shade that approaches a rust colour, and is applied more thinly, with the brush strokes often showing, to give a slightly striped effect (PLATE 49, *c*, 6). The black wears the least well, and is applied both thickly, when it often chips, and in the thinner fashion showing brush marks. Both black and brown wares are polished.

There are also several examples in each of the three colours, slightly fewer in black than the others, of pots unpainted on one side with monochrome decoration on the other. The plain side can be either the interior or the exterior.

Fabric. The clay is always very fine and well washed, though occasional examples have a certain amount of added sand. The ware has generally a very good and highly finished polish. This is particularly noticeable in the red group and also on the unpainted sides of that type of the ware.

Shapes. **Kylix.** Many examples of kylikes can be easily picked out. They occur in two main types, a tall, slim variety, such as F 264, and a short, squat variety, often with very little stem, such as F 263. Both have rounded bowls with sharply offset lips. It is to be noted that they do not use the same shapes as contemporary unpainted wares. The bases of the taller ones are flanged and flat beneath with a hemispherical cavity. They are unpainted beneath and around the edge of the flange. Those of the squat variety often have high torus bases, hollow inside.

Rhyton. One sherd of red-brown colour. Painted outside only, but polished on the inside also.

Other shapes identifiable include dishes and bowls, of which there are several bases of various types. The bulk of the sherds, however, are from unidentifiable shapes.

Handles. Painted monochrome from monochrome and decorated pots. These are mainly of vertical flat type in various sizes in all three colours. There are flat kylix handles of the ' ? ' type, one of which has a central rib, and there is also one rounded horizontal loop handle which may come from a kylix or stemmed bowl.

---

[34] Cf. *BSA* XLII, pl. 13, 7 and 8.

3. *Unpainted Ware*

This ware forms about half of the total deposit.

Kylikes. An overwhelmingly large proportion of unpainted ware can be readily identified as from kylikes. The varieties of shape represented are primarily those to be found within the category of F 267, to which the greater number of the examples belong. The articulation of the bowl varies from a sharp angle, with the upper section almost concave, to a gentle rounded curve. The lip is generally offset, though at varying angles, and is very occasionally almost absorbed into the reverse S section of the profile. The handles when detached have the look of a well-drawn question mark, since they were attached at the bottom for a considerable distance down the lower part of the bowl. These handles are mainly plain and flattened, but some examples are flat and ribbed or ridged. Occasional examples spring from below the rim. To this general type belong the stems with the rather sharp outward flare of the bowl.

Of this type one complete example and six sherds of another show very distinct traces of burning around the rim only, and may possibly have been used as lamps.

There are also several examples with high swung handles (F 272, 273). The stems of this group have a more gentle curve where they join the bowl. Only one example in the unpainted ware had a stem with ridges marking this joint.

It is impossible to tell to which type the unattached bases belong. The bases, however, which are as numerous as the rim sherds, fall into two main groups. About 10 per cent of the total are entirely flat beneath, usually with a clear marking from the string by which they were removed from the wheel. Over half, however, are slightly concave or conical beneath, and have a neat hemispherical cavity at the base of the stem.[35] The majority of this type have also a slight flange on the upper edge of the base. Another 10 per cent combine these two types, having a hemispherical cavity in a flat base. Oddities include one shallow conical example, a survival of the earlier types, examples with very deep and very shallow cavities, and one with the cavity very roughly made with a stick and not, as normally, with the forefinger.

Fabric. For the most part the fabric of the unpainted kylikes is a soft very well washed pinkish buff, occasionally treated with a little sand. This fabric is almost universally left unpolished, but given a fine smoothed surface by hand or with a cloth (the marks of which are occasionally noticeable).[36] Only one sherd is slipped, a pale buff on a core rather more pink than average. The bases are, as a rule, much better finished on top. The only polished sherds that are definitely from entirely unpainted kylikes are some of the ridged flat handles, and a section of a very large kylix of the type F 266. This is of very highly polished Yellow Minyan ware, and its detail is of metallic character.

Bowls. Examples of bowl type F 295 are almost as frequent as kylikes. The flat horizontal handles are easily identifiable, although in many cases the articulation of the bowl is very similar to that of the kylix. Occasional examples of this type have heavy thick rims, somewhat squared at the edges, on bowls that are less articulated than the others. This kind of lip can also be slightly offset.

Bowls of type F 204 are also common. This type is most prevalent in L.H. I–II and early IIIA, and has completely gone out of use by the middle of L.H. IIIB, as shown in the copious deposit of domestic ware from the House of Sphinxes.[36a]

The bases of both types of bowl are of several kinds. The most common type has a clear profile to the edge of the base, and the mark is apparent of the string used to remove the bowl from a slowly moving wheel. In several cases this removal was done hastily, and the moist clay left in a rough uneven ridge along one side of the base was not removed. One example shows clearly that the bowl was removed with a knife blade and not a string. Most other bases have a slight raised base and have the bottom smoothed off after removal from the wheel. The two best-made examples have a ringed base and a small cavity in the centre of the bowl inside.

---

[35] Additional Note B, p. 285.

[36] Additional Note A, p. 284.

[36a] See p. 238 above.

Fabric. The majority are of the same soft buff fabric as the kylikes, though often with more sand, and are well smoothed only. However, two of the handleless bowls are slightly burnished, and there is one of almost grey Minyan fabric. The heavier examples with squared rims of the angular type are usually almost polished.

Amphorae or Jugs. There are a good many examples of vases of type F 109 in the deposit. Identifiable pieces include necks, handles, and bases, but a large proportion of the plain general sherds which are unfinished within must come from such pots.

The rims are of various kinds. The necks generally curve into the body gently, but two examples have the joint marked by a groove and ridge, while another has the sharp transition made by inserting the neck separately into the body and leaving the joint well defined. The handles are broad, fat strips running from the neck to the shoulder. Most of the bases are either flat with a well defined edge or slightly raised. A few have ringed bases.

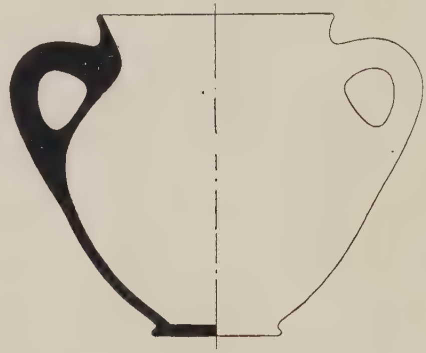


Fig. 13.—Mycenae: Cooking Pot. (Scale 1/4.)

Fabric. The amphorae are mainly of the same buff clay that is used for kylikes and bowls, but it is fired somewhat harder, and is finished outside to such an extent that it is almost polished. The inside is quite unfinished. One or two examples have a fine self slip over clay, with much sand and gritty matter. One example is of fairly heavy red fabric.

Kraters. Three types of sherds would seem to indicate the presence of the large open bowls known as kraters. First very thick, heavy, squared rims leading into a body of which the curve precludes a shallow bowl. Second, a great many handles of the kind associated with kraters were found. While these could alternatively belong to hydriae, it is likely that a large proportion of them are from kraters which are a more common shape. Finally, there is a large number of heavier sherds of a general sort polished or smoothed both inside and out. There are no pots of which sufficient sherds have been found to give a complete section, and no real evidence of types within the group can be advanced.

Fabric. The clay is very fine and well washed, and varies from a pinkish tone to the common yellow buff. There is seldom any sand or other added matter. The sherds are either polished or smoothed. The polished examples in one or two cases show signs of burnishing, whereas the smoothed specimens have often been treated with a very diluted wash of their own clay. It can hardly be called a slip, and may be only a hand slurry. All are fired hard, and three examples are pink inside and buff outside, doubtless from being stacked one inside another during firing, as there is no sign of an external slip.

Cooking-pot (FIG. 13).[37] This shape is not illustrated by Furumark among his domestic vessels, though it is extremely common at Mycenae in all contexts of domestic wares. It resembles most closely F 279, and has affinities with the amphora type. Normally it is found in the coarse-ware fabric described below, but we have also two examples of it in a fine buff fabric. One is small and fine with a well polished exterior; the other is of normal size, but in good buff fabric, polished outside and well smoothed inside the rim.

Rhyton. One section of an unpainted rhyton was found. The fabric is of fine buff clay, thick and hard. The finish is a burnished polishing outside, while the inside shows signs of hand modelling on the wheel until the diameter was too narrow for this to be feasible. Below this point rough splash marks are visible.

Miniature. One sherd about 0·03 m. high comes from a miniature pot. It is of pink well smoothed clay, and was a small globular vase with a curling offset lip making almost a true S curve with the body.

4. *Coarse Ware*

This ware, for the purposes of this report, is distinguished by its fabric, which is a fine well washed clay with a great deal of sand and grit added, often in large particles. This is then slipped with a dilution of the plain clay, sometimes thickly, sometimes only so as to give the effect of a paint or wash with the gritty matter showing through and giving an oatmeal effect. The outside surface is always well finished by smoothing as far as the clay will allow. A few painted fragments come into this category from large heavy stirrup jars decorated with broad bands.

Proportion about 1 : 5 of the total.

Identifiable shapes : [38]

Stirrup Jars. Handles and sherds with bands from near the base; oatmeal ware.

Cooking Pot. Rims and necks; pink, gritty, thick slip, very well smoothed.

Ladles. High swung heavy handles indicate the presence of this type of vessel; fabric as of cooking-pots.

Lids. Heavy examples and at least one small with a small projection at the apex.

Krater, Amphora, Hydria. Handles, rims, and bases from these types of larger, heavier vessels.

Feet. Many examples and at least one well finished and pierced (may be *handle* of type F 312). These are the only identifiable indications of the presence of the common tripod vessels (F 320).

Miscellaneous. Spout, pithos rim, very heavy stem, lug handle (black), unidentifiable sherds of thickness varying from pithoi to light small bowls.

---

[37] Cf. *BSA* XLII 47, pl. 13, 9.

[38] Only in the small areas excavated in 1953 and 1954 was the total quantity of the excavated pottery available for close study, but the notes taken during the sorting of the pottery in the previous two years show that the same elements were present.

III. SMALL FINDS

A. Terracotta

In the fill of the North Room above the floor :

Two fragments of chairs, one with part of seated figure (PLATE 49, *b*, 1, 2).

One head of female figurine, with applied eyes, features in brown paint, hair painted at the back (PLATE 49, *b*, 4).

One neck and shoulders of female figurine; type uncertain.

In the floor itself between the layers in the South Room :

One female figurine of Ψ type; part of body and stem only.

One chair; small portion of seat only.

One animal; fragment of body only, a hollow rough tube.

In the Deposit :

One complete female figurine of Φ type; no *polos*. Well made (PLATE 49, *b*, 3).

Eight fragments of female figurines. Two heads, one with *polos* and hair indicated as fringe below (PLATE 49, *b*, 6).

Two with body and stem, of tall columnar type; one of Φ type; one dubious.

One fragment of body, of Φ type. One stem, one base, one stem and base.

Seven fragments of animals. Two legs. Two horns. Two hindquarters: one elongated, solid with reddish paint; one delicate, with down-curving tail, brown stripes on buff. One possibly from applied animal; fragment of neck and shoulders only, unusual striping.

One chair: portion of seat only.

B. Other Materials

In the Deposit :

Obsidian. One fragment of greenish colour, indeterminate shape.

Stone. Probably steatite. Three whorls or buttons, grey, black and purplish. Conical. Two chipped, one in good condition.

Bone. Small worked fragment of small stopper-like object. Broken.

Lead. Fragment. Rough square. Purpose indeterminate.

IV. ADDITIONAL NOTES

A. Smoothed and Polished Finish

The finish of Late Helladic vases from Mycenae falls in general into two categories which can usually be easily distinguished, though occasionally the condition of the vase is such that its finish has been obscured. The painted ware has in the main a polished finish, and the unpainted a smoothed one, but this distinction is very far from universal.

The polished surface is easily distinguished by its feel, and has a remarkably lustrous appearance, falling in many cases only just short of a glaze. Only very seldom does any trace of ' burnishing ' in its true sense appear on the vase, and I therefore suggest that this finish is the result of the use of a lime flux over the surface of the entire vase before firing but usually after painting. This treatment would account for the uniform lustrous surface and also, when used carelessly or in excess, for the flaking and cracking that occasionally occurs. On slipped vases the lime was doubtless mixed with the slip and with the paint. Some vases carelessly finished show traces of the lime on their surface. The finish on vases from other Mycenaean sites does not reach such a high lustre and is more subject to flaking, but this is doubtless due to reactions of the clay and lime used under the firing conditions and not to any great variation of method. The smoothed surface is distinguishable from the polished both in appearance and feel, and from unfinished wares by the feel and by the less obvious traces of turning. It is, I believe, a derivative of the Minyan technique. It has been suggested to me that the Minyan surface is produced by the use of an exceptionally fine and well levigated clay in a very wet state. If this is so, then the vases with smoothed surface found in all later contexts are doubtless produced by washing down the pot as it turned in a finished state on the wheel, and by giving it a very wet hand slurry. This would normally have been done with the hand, but occasionally marks are visible as from a cloth. Even heavy vases of coarse ware often have a variety of the smoothed surface finish effected by applying the slip lavishly and diluted.

B. Metallic Influence in Pottery Techniques [39]

The influence of metallic prototypes on Mycenaean pottery is widely recognised. It is most clearly seen in the accessory parts of vases, such as spouts and handles, and in the finish of certain types of rim and base. Even in fairly rudimentary and undeveloped metalwork these accessories can be given, as it were, a finished, sophisticated appearance. Therefore as pottery techniques advanced and it became possible to experiment with the finish of pots, these metal prototypes would readily be copied until ceramic finishes were evolved independently. However, in spite of the evolution of their own forms of finish, many types of vase retained signs of metallic influence either because these were popular or because of convention in these matters. Several examples from this deposit illustrate these points. Minyan ware stands at the beginning of highly developed pottery, and naturally shows the influence of contemporaneous metalwork. The two grey Minyan sherds found are rim pieces and illustrate the squared offset type of rim which is undoubtedly imitated from the roughly finished edge of metal vessels. This type remains popular, and there are in the deposit a number of examples of unpainted bowls of heavy polished fabric with this kind of rim. Also among the unpainted wares the kylix and bowl shapes with extremely sharp articulation of profile must be influenced by metal where this is natural. Kylix bases, however, are a different problem. The ' splaying ' metal base is clearly reflected in kylikes, and the flange popular in L.H. IIIA is probably also of metal origin. However, in my opinion, it is not necessary to assume that the kylix bases with the hemispherical cavity beneath require a metal prototype. If a kylix base is to be finished at all on the underside by turning the pot upside down on the wheel and applying some sort of treatment (and a considerable proportion are not so finished at all), roughly two methods are possible. Either the splaying type, curving or conical beneath, can be created by using the thumb or fingers in the manner of making an ordinary straight-sided bowl, or for greater stability in the finished product a small dent can be made in the centre where the clay would naturally hump up during this finishing process, and the rest of the base be left almost flat yet tidily finished. This dent has a place in metal technology also, but it has a distinct use in ceramics. It allows for a more even thickness of clay throughout the vase, and helps thus to prevent accidents in firing. Often the thicker the stem, the greater the diameter of the cavity, and the short-stemmed monochrome bowls have almost entirely hollow bases.

In the painted wares metallic influence is visible in the mugs, which have ridges as accessory decoration at the waist and neck. They no longer have a metallic appearance, but are clearly of this origin.

---

[39] This problem is discussed by Furumark, *MP passim,* with regard to shape in general, and by Stubbings, *BSA* XLII 60 f.

Finally, there is an excellent example of another type of metallic influence. Here the influence is not from a remote origin, but is related to the class of vase. A rhyton was a vase without doubt more frequently made in materials more elaborately worked than clay. The clay examples therefore are often much more elaborate than other contemporary pottery. The 'N' pattern rhyton, with its extremely complex rim, is a good example, and from an examination of the related vase in the British Museum I believe that at no point is the original rim still intact, but that what remains is the beginning of a similar complex rim that has been misunderstood in restoration.

C. The Interrelation of Certain Patterns

There are represented in this deposit many examples of the groups of Mycenaean patterns which, it is important to note, are related stylistically from the point of view of composition and design. They are used one for another indiscriminately, and develop one from another without losing their own identity. These are the groups based first on the quirk (PLATE 48, *c*) and secondly on the flower. In the first group fall such patterns as the wavy line, the 'N', 'U' and 'V' patterns, the zigzag, and some versions of the foliate band. In the second the flower becomes mixed with the whorl shell and is also linearised into the tongue pattern, chevrons, and the foliate band. They are used on cups and particularly on the shoulder zones of piriform jars where a frieze design was required, yet one that would break the horizontals, and on the shoulders of stirrup jars, where the problem of composition was constant and challenging. It is obvious that these motifs were used by Mycenaean vase painters as a repertoire from which they could draw, and which they could adapt as the decorative problem required and as their imagination and sense of design dictated. The patterns did not supersede one another,[40] and though they frequently influence one another, they are not in the true sense developments one from another. It would be very unwise to try to attempt a classification of these motifs too rigorously either schematically or chronologically, for we are facing the series of variations produced by the painters from a given constant range of patterns (which exist right through the Late Helladic period) to suit given unchanging decorative problems.

D. Notes on Pottery from Related Areas of the Site

1. *From the Burnt Deposit on the Small Floor at the North End*

All heavily encrusted. Notably:

A large fragment from a large bowl, rather globular with curved offset rim.[41] Pink clay with grit, heavy buff slip, rust-coloured paint, very highly polished. Rosette F 17 : 13–4 with 'V' filling ornament. (PLATE 48, *a*, 1.)

Eight sherds of a large pot, probably a krater. Black paint, much worn, in spirals.

Two sherds with red painted spirals; very high finish.

Other painted sherds with extremely high finish. Also one monochrome sherd and eleven of unpainted ware. Two handles of early types.

All probably of L.H. II date.

2. *From the Earth between Layers II and III of the Floor*

There was here a considerable accumulation of pottery and several terracottas, especially in the south room. The pottery is identical in range and styles with that of the deposit itself.

---

[40] *BSA* XLII 36, figs. 5, 6, 15.

[41] *Cf.* Wace, *Mycenae*, pl. 94 *p*.

It included a fragment of a good L.H. II alabastron, a spiral sherd, a stippled cup, several bowls decorated similarly to those from the deposit, two banded kylix bases, linear decorated pieces with bands and with fine lines, one sherd of monochrome ware, and several sherds of typical unpainted and coarse ware.

3. *From the Brown Earth below the Fill*

This layer had many sherds distinctly later than the deposit. Notably there is linear decoration of mixed line groups and monochrome ware of very poor quality. The designs are all slightly more developed. Banded kylix stems and bases are also present.

4. *From the Well*

Lower levels, I–III.

Painted. Notably a sherd with a row of isolated spirals; other spirals, one antithetical, one treated internally as a flower. Sherd of black stipple cup. Very fine well executed cup base.

Linear. Broad bands; one stirrup jar with line group. Splaying jar base with three even thin lines in slightly diluted paint. Kylix stem (PLATE 49, *c*, 5).

Monochrome: a few sherds.

Unpainted. Mug; polished fine pink clay. Other general sherds.

Levels IV–V.

Painted. Stipple mug. Early style quirk, flower, unusual whorl shell with solid stem, finely drawn spirals, and one antithetical roughly drawn, lily, scale; both fine and large bold types.

Linear. Both types, including striped rhyton fragment (PLATE 49, *c*, 1). Striped kylix bases.

Monochrome. Good red and stripey brown.

General unpainted and coarse ware, including one light on dark sherd.

Upper levels VI–VIII.

Painted. Notably a deep bowl, with large rough 'N' pattern (F 60 : 1) in worn black paint. Several examples of the quirk, including types 15, 17, and framed as part of a linear group, probably from piriform jars.

Linear. Line groups of thin lines between broad bands as well as groups of broad bands. Rhyton: lower portion in stripes, but not as well or decisively painted as an example from the deposit. Two banded kylix bases.

Monochrome. Several examples of both good and poor quality.

General good unpainted ware and some coarse.

This pottery from the well is remarkably consistent and shows very little development from the lower layers to the top. The date in general would appear to be just later than that of the deposit, probably early in L.H. IIIB.

5. *From the Pit in the South-east Corner of the Floor*

The pottery was almost entirely unpainted ware of the common varieties, with no obvious datable distinctions. There were seven sherds of good monochrome, including part of a kylix in a warm pink clay, unpainted outside but an excellent red monochrome inside the bowl. The nine linear fragments all have bands of even width; all but one sherd have broad bands.

One of these is the base of a kylix. The two sherds with designs bear a spiral and part of a flower (F 18 : 11) extremely well drawn in a simplified linear fashion on good buff clay, very highly polished.

6. *From the Earth above the Pit below the Fill*

This pottery is again rather indeterminate. There is only one sherd of monochrome and very little linear ware, though one sherd had bands in diluted paint, irregular in width, of a rather transitional character. Painted sherds include a piriform jar fragment with a deep wavy line pattern, two pieces of a krater with 'V' pattern, a whorl shell, a kylix, and a bowl rim with a large tricurved arch pattern.

7. *From the East Trench*

This trench was dug behind the east wall of the north room and extended down to the level of the drain. It yielded an unusually large number of fragments of figurines mainly of animals of the usual types. Great quantities of pottery of the L.H. II–IIIB period were also found. This is possibly fill put in behind the wall when it and the drain were constructed.

8. *From a Patch of Soft Brown Earth in the Fill at the South End of the South Room*

This rather extraordinary patch in the fill, which may have been the final area to be filled, contained a large quantity of pottery, mainly rather heavy and large pieces. Notable were many fragments of a large pot in heavy orange clay, a piece of a Zygouries-type kylix, a square-sided alabastron, an elaborate flower pattern, and linear pieces with elaborate line groups. All this indicates a date very distinctly later than the deposit.

E. The Human Skeletal Material from the Well (by Dr. J. L. Angel)

The human remains deepest in the well, below 2·80 m., are *74* and *75 Myc*, the odd bones of a child seven to ten years old and an adult (female?) over thirty. Between 2·00 and 2·50 m. were found fragments of middle-aged adults, male and female, and of two children six to seven years old (*83–86 Myc.*). Slightly higher, about 1·75 m. deep, occurred scattered bones from a child of seven to nine and a woman (?) of middle age (*76* and *77 Myc.*). Above these, at 1·10 m., lay more complete remains of a moderately tall woman of about thirty (*78 Myc.*, the west skeleton), and of a child of six (*79 Myc.*, the east skeleton). Above these, in and below the heavy built fill above the well, were found three girls in their twenties, *80* and *81 Myc.* excavated in 1952 and *82 Myc.* uncovered in 1953. Bones of domestic animals, including those of a large hound (of Great Dane size and massiveness), were at least equal to the human bones in number.

The three skulls which are restorable (*78*, *80*, and *81 Myc.*) differ from the average Mycenaean Greek in being short-headed, with skull length of 169 mm. and cranial index of 84·7. *78* and *81 Myc.* both show retention of the metopic suture, a sphenoid skull vault shape, a slight degree of flattening of the back of the head (presumably artificial), and squat faces. *80 Myc.* has a long face, rhomboid vault shape, and a trace of posterior sagittal flattening. More definite skull deformation of these two varieties occurs in Neolithic and Bronze Age South and East Cyprus (J. L. Angel in P. Dikaios, *Khirokitia* (Oxford, 1953), 416–30; C. M. Fürst, *Zur Kenntnis der Anthropologie der prähistorischen Bevölkerung der Insel Cypern* (Lund, 1933)), regions which are on the average shorter-headed than Greece with more frequent metopic sutures (11–17 per cent) in adulthood. But comparable *individual* skulls do occur in the Bronze Age at Cheliotomylos (Corinth), Asine, the Heraeum of Argos, and Antiparos. What meaning must we attach to the intramural occurrence of three such individuals together? Does it help to add that five out of six of the whole group of adult skeletons have slight arthritic changes in the lumbar vertebrae, in spite of their relative youth?

V. COMPARISONS WITH OTHER POTTERY DEPOSITS OF SIMILAR DATE

At MYCENAE three other deposits of pottery can be usefully compared with the one from the Cyclopean Terrace Building: those from the rock cleft at the Treasury of Atreus, from under the Ramp House, and from the dromos of Tomb 505. Of these the first is distinctly earlier than ours, the second apparently almost contemporary, and the last very slightly later in date.

The Atreus deposit [42] is remarkable for its omissions and for the general character and style of the pottery. In the range of both shapes and types of motif the influence of L.H. II pottery is clearly felt, though the proportion of actual L.H. II survivals is similar to that in the Cyclopean Terrace Building deposit. Recent further study of the selected sherds surviving from the Atreus deposit has revealed the following points of comparison and contrast. The fabric is similar and is generally well polished. The paint is predominantly of red-brown colour, though both the true red and the dark brown are common. In the range of shapes it is noticeable that the flat alabastron is still common, though there are also examples of the squared type. Kylikes are very rare; but piriform jars, mugs, and tea cups are all frequent. There is one large fragment of what is probably a lid (F 334) decorated in a simple linear fashion. There are a few sherds of monochrome ware, but it is obviously not yet common. Several sherds of rather poor quality Palace Style were found. The linear decoration consists mainly of the broad-band groups found also in the Cyclopean Terrace Building, but has a few line groups of an elementary and not very skilfully executed type. There are also examples of dilute paint techniques. The rhyton fragment (PLATE 49, *c*, 2) is a combination of these types, but is not so well finished as the Cyclopean Terrace Building examples. In general, the patterns are those of the late L.H. II and early L.H. IIIA periods. Lily, parallel chevrons, foliate band, rosettes, deep wavy line, and double axe illustrate the earlier portion, while there are IIIA versions of the papyrus, rock work and sacral ivy (drawn with assurance in double outline by a painter whose hand appears recognisable also in an outline shield pattern and on a few other sherds).

Net and scale are very common, and are used together on one krater, while on another the scale pattern is used in conjunction with a spiral design. Most important, however, from the north side is the extremely large number of fragments from vases of all sizes with curved stem spirals (F 49 types 1, 6, 8, 10, 11, and with filling ornaments). They are drawn lavishly with considerable verve, and, though the spiral itself is in general quite carefully drawn, the tail is allowed to flourish loosely. The spiral designs have a feeling of greater laxity than those of the Cyclopean Terrace Building. Also from the north side come three large jugs with inserted necks, treated metallically, with a torus moulding and decorated just below this with, respectively, a band of 'N' pattern, wavy line, or foliate band framed. These patterns are not otherwise common in this deposit in their L.H. III types. From the south-west section comes the large quantity of stippled fragments. These resemble very closely those from the Cyclopean Terrace Building, except that in addition to the red and black there is also a distinct ginger-brown tone. The shapes of tea cup and mug are the most common in this ware here also. There is also an interesting bowl decorated with parallel irregular lines on the outside and just overlapping the inside. This is somewhat similar to the bowl from the Cyclopean Terrace Building (PLATE 48, *c*, 5) but more roughly drawn.

---

[42] Wace, *Mycenae* 127, pls. 47, 48.

The Ramp House deposit [43] is very similar to that from the Cyclopean Terrace Building, both in range and types. The 'red and black glazed ware' probably belongs to the L.H. III section rather than to the L.H. I–II period, but the large number of these sherds is interesting. The pottery from the dromos of Tomb 505 [44] is notable for its kylix fragments. Striped stems were apparently numerous, and the various patterns from the bowls illustrated show a style not dissimilar to that from the kylikes from the Cyclopean Terrace Building. The plain and coarse wares are also similar. This deposit, however, lacks the earlier pottery that is found in both the Cyclopean Terrace Building and Ramp House deposits. This may be due to the different nature of the deposit, but it is also likely that it does cover a period slightly later than the others.

From other sites the plain wares are paralleled in the pottery from Tomb I : 1 at ASINE,[45] where there is a similar range and style, both of kylikes and bowls. The pottery from the palace at THEBES [46] is not available for study and has not been fully published, but the examples illustrated and described bear considerable similarity to the Mycenae examples. Notable at both sites, as at Mycenae, are the handleless bowls of early type with incurving rim (F 204).

The earlier pottery from VOURVATSI in Attica [47] shows a wide range of parallels with the Mycenae deposit. Particularly comparable are the mugs with both stipple and spiral designs, the kylikes with striped stems and the rhyta, particularly the striped example. The other L.H. IIIA groups listed by Dr. Furumark [48] offer parallels for individual shapes and designs, confirming the general impression of the period and range of the Cyclopean Terrace Building deposit.

Any deposit of this period must, however, stand the test of comparison with the absolutely dated deposit from TELL-EL-AMARNA.[49] The Amarna sherds illustrate the culmination of various decorative tendencies visible in the Mycenae pottery, and the vases from Rhodes [50] and Cyprus [51] show their more immediate derivation. Decoratively the Amarna pottery marks the end of a period and shows the lines along which new styles will develop. The interrelated pattern groups mentioned above [52] have reached a climax of development, and are almost the sole forms of decoration used. The line groups have developed, though they have not yet achieved the precision and accuracy of execution to be found in the next period. Examples of transitional and experimental styles are still common. Striped stemmed kylikes and white paint patterns on red bands also occur occasionally.

All this is easily traced through the contemporary wares of Kos, Rhodes, and Cyprus. These are all tendencies and styles of which traces have been noted in the Cyclopean Terrace Building pottery. The island pottery and its exports in Amarna can therefore be considered as derivatives and developments of the mainland pottery of Mycenae and elsewhere, and a deposit such as that from the Cyclopean Terrace Building, which shows this tendency in the process of evolution, can be safely assigned to the period which reached its culmination with the Amarna material. Obviously, however, the island potters did not derive each successive stage in the development of their wares from the mainland, but developed independently along parallel lines, as it were, starting from a similar source. This influences to a certain extent the chronological conclusions that can be drawn from parallels between the mainland and the islands and their sphere of influence; for it would seem that the mainland never developed to so great an extent the stylistic tendencies so overwhelming in Cyprus and at Amarna. They remained more rudimentary and continued as a source of experiment throughout the L.H. IIIB period also. Thus the Mycenae pottery may not antedate the Amarna specimens by so long a period chronologically as it does stylistically.

---

[43] *BSA* XXV 79.

[44] Wace, *Chamber Tombs* 16, fig. 8, pl. XVI.

[45] *Asine*, 359 f., figs. 235, 240.

[46] *AE* 1909, 99, fig. 7.

[47] Stubbings, *BSA* XLII *passim*.

[48] *The Chronology of Mycenaean Pottery* 52 f.

[49] Petrie, *Tell-el-Amarna*, pls. XXVI–XXX; Pendlebury, *City of Akhenaten* II, pl. XLV; III, pl. CIX; B.M. A 990–9.

[50] *E.g.* B.M. A 801–970.

[51] *E.g.* B.M. C 429–92.

[52] Additional Note C, p. 286.

VI. CONCLUSIONS ON DATING OF BUILDINGS, ETC.

The deposit of pottery from beneath the floor seems fairly conclusively datable to the L.H. IIIA period. No pieces from it are necessarily later than this, and the deposit contains many elements of this period and can be well paralleled by other remains of this date. This gives a comprehensive sequence of dating for the buildings [53] on the site. The earliest is of late L.H. II date. The next, that for which the deposit gives the *terminus post quem*, must be of the second half of the L.H. IIIA period. The few sherds found between the layers of the floor confirm this and give evidence of the occupation date. The packed earth above the floor and the fill of the well date from before the building of the final structure and assign it to the early L.H. IIIB period. The fill of this structure, though not offering much evidence, helps to confirm this construction date. Finally, the whole area was laid waste by the L.H. IIIC period sufficiently for burials of that date to intrude into the upper levels of the fill. This building scheme fits well with other evidence from the area and with the archaeological history of Mycenae as a whole. The ‘ South Megaron ’ of this same area has a terrace wall similar to that of the North Megaron, and it overlies a large structure datable in respect to its contents to late L.H. IIIA. This section is much nearer the surface, and the later structure is almost completely denuded. The buildings to the south-west and north-east also date to L.H. IIIB. These, therefore, confirm the two main periods of construction in the area. Elsewhere at Mycenae the L.H. IIIB period saw the building of massive structures often supported by heavy terrace walls and vast foundations, *e.g.* the House of the Oil Merchant,[54] which also overlay substantial remains of the previous period. Moreover, everywhere outside the citadel there is evidence of destruction before the beginning of L.H. IIIC.

As to the purpose of the successive buildings little can be said. It may, however, be noted that both the House of the Wine Merchant [55] (beneath the South Megaron), with its large collection of wine jars, stoppers, and pithoi, as well as the pottery shop [56] to the north-east, indicate the presence in this area, in each period, of buildings used for commerce and not solely as dwellings. It is therefore possible that this was a commercial rather than a residential area, and the lack of domestic features in these buildings would thus be explained. The House of Shields,[57] also, now seems after the most recent excavations to have been not a dwelling but a building for some other purpose not yet determined. Its likeness to the Cyclopean Terrace Building may thus add to our conclusions about the latter. Moreover, the group of ‘ atypical ’ skeletons may possibly indicate foreign workers, either slave or free, though the evidence on this point is too scanty to be given much weight without further confirmation.

The whole of this area is extremely rich, and the soil on the steep slope is in places very deep. When further excavation can be carried out, important finds may be expected, and it may then be possible to determine whether any such conclusions can rightly be reached.

ELIZABETH B. WACE

---

[53] See p. 273.

[54] *BSA* XLVIII 14.

[55] *BSA* XLVIII 16.

[56] FIG. 1 (2). *PAE* 1950, 203 f.

[57] See p. 235 and reports of Mycenae Excavations 1954.

MYCENAE 1939–1953

PART VII. A BRONZE FOUNDER'S HOARD

The bronzes described below were found about 0·20 m. below the surface in the central part of the Prehistoric Cemetery area excavated at Mycenae in 1952. (Cf. *BSA* XLVIII 6 f., with pl. 2—hereinafter referred to without the volume reference.) They lay together in a small heap as though they had been buried in a bag of some material which had entirely perished. The numbers attached to the objects here are those of the 1952 excavation inventory.

Dagger

409 (pl. 2, *d*). Total L. 0·29 m.; tang 0·09 m.; W. at guards 0·04 m. Complete, but broken into five pieces.

The combination of cruciform hilt, flanged throughout, with a blade narrow but without midrib, is not very common, though there is a good L.M. III parallel from Palaikastro.[1]

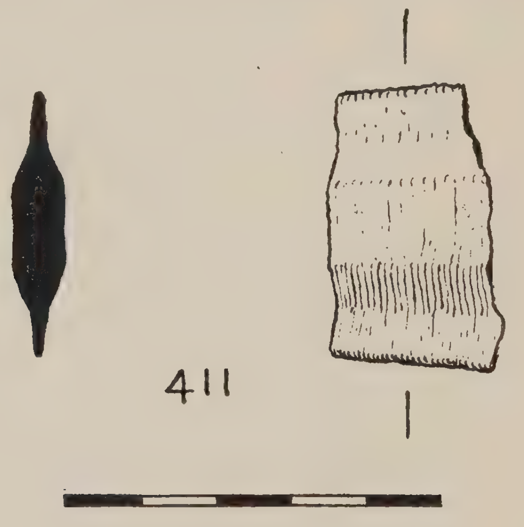


Fig. 14.—Fragment of Sword.

Cruciform *swords* are rather more familiar; one from Prosymna [2] is virtually a longer version of our dagger (44 cm. against 29) except that the flange does not continue round the butt end of the hilt—perhaps because the larger weapon had a pommel of another material, in one piece, while for a dagger the pommel was made as part of the hilt. Other L.H. III daggers from Prosymna have the flanged hilt (not cruciform) with a broad thin blade.[3]

Sword

411 (fig. 14). Fragment only. L. 0·02 m.; W. 0·035 m.

From a sword or dagger blade with pronounced flat midrib, similar in section to an example from Prosymna [4] which Blegen dates not later than L.H. II.

---

[1] R. C. Bosanquet and R. M. Dawkins, *Unpublished Objects from Palaikastro* 117 and pl. XXV 1.

[2] C. W. Blegen, *Prosymna* fig. 198.

[3] *Prosymna* 330 ff., type (d).

[4] *Prosymna*, figs. 196, 607.

SICKLES

401 (pl. 2, *b*, left). Total L. 0·29 m.; greatest width of blade preserved, 0·025 m.; thickness at back edge, 0·003 m. Complete, apart from chipping and decay of cutting edge, but has been snapped in two by bending. The short flat tang is rather narrower than the blade, and has one rivet-hole.
402 (pl. 2, *b*, second from left). L. preserved 0·17 m.; W. 0·015 m. Tang missing.
404 (pl. 2, *b*, third from left). L. preserved, 0·115 m.; W. of tang 0·023 m.; thickness 0·002 m. Tang, with one rivet-hole, and stump of blade only.
405 (pl. 2, *b*, fourth from left). L. 0·202 m.; W. at base of blade 0·025 m.; of tang 0·02 m. Complete.
407 (pl. 2, *b*, top right). L. 0·047 m.; W. 0·02 m.; thickness 0·004 m. Fragment of blade only.
408 (pl. 2, *b*, right centre). L. 0·035 m.; W. 0·021 m. Tang only.

The type, known from a fair number of sites,[5] is well illustrated by no. 405, though the backward curvature of the blade near the tip is slightly more pronounced than usual. No. 401 is unusually long, though its blade is of normal width and thickness. The single rivet-hole is normal; but we have no evidence of the method of hafting. This appears to be a Mainland Greek form: examples from Crete [6] are usually much shorter in proportion to the width of blade.

KNIVES

403 (pl. 2, *b*, fifth from left). Total L. 0·105 m.; W. of tang 0·014 m. The tang, incomplete, shows only one rivet-hole. Blade grooved parallel to back edge.

This straight pointed knife is of a regular L.H. III type. Examples vary somewhat in size (ours is small) and in the presence or absence of the groove. Two rivet-holes are normal.[7]

420. Five fragments, the largest 0·06 × 0·045 m., probably from cutting implements (knives or sickles), since most of them are thicker at one edge.

CHOPPER

406 (pl. 2, *b*, bottom right). L. preserved, 0·09 m.; W. of tang 0·032 m., of blade 0·044 m.; L. of tang 0·06 m.; thickness 0·004 m. One rivet-hole.

This is the tang and stump of the blade of a chopper of well known L.H. III type.[8]

DOUBLE AXE

423 (pl. 2, *c*, right). L. 0·22 m.; W. of cutting edges 0·07 m.; thickness *c.* 0·03 m. Socket oval, *c.* 0·04 × 0·02 m.

This is of a normal shape and size for the L.H. III period.[9]

ADZE(?)

410 (pl. 2, *c*, second from left). L. 0·145 m.; greatest W. 0·045 m.; thickness 0·006 m.

This type of wide chisel or adze with flaring cutting edge seems commoner in Crete [10] than on the Mainland; but there was one in the Athens Acropolis bronze hoard.[11]

CHISELS, ETC.

415 (pl. 2, *c*, left). L. 0·155 m.; W. of cutting edge 0·017 m. Stem octagonal in section (*i.e.* square with chamfered edges).
416 (pl. 2, *c*, third from left). L. 0·096 m.; W. of cutting edge 0·009 m.; W. of stem 0·006 m. Stem square in section.
417 Fragment (blade end) of a chisel like 416. L. 0·022 m.; W. 0·015 m.

Such chisels are not very common in Mycenaean contexts, but again the Athens Acropolis provides a parallel.[12]

---

[5] *E.g.* Athens: O. Montelius, *La Grèce préclassique* I 153, fig. 491 and p. 156; Zygouries: C. W. Blegen, *Zygouries* 203 and fig. 190, 2; Mycenae: Montelius, *op. cit.* pl. 16, 8; Corinth: *ibid.* pl. 17, 4; 'Amorgos': Ashmolean Museum 1927.1362.

[6] *E.g.* Montelius, *op. cit.* pls. 16, 10 and 12 (Gournia), 17, 2 and 3 (Siteia, Phaistos).

[7] *Cf.* A. J. B. Wace, *Chamber Tombs at Mycenae*, pl. VII 50 (Tomb 518) with grooved back; C. W. Blegen, *Prosymna*, fig. 309, large, without groove.

[8] Discussed by Blegen, *Prosymna* 347; for the full shape *cf. ibid.*, fig. 485, 4. They are often called razors, Tsountas, *AE* 1888, 171.

[9] *Cf.* O. Montelius, *La Grèce préclassique* 153, fig. 486 (Athens) and pl. 5, 12 (Mycenae).

[10] *Cf.* J. Hazzidakis, *Villas minoennes de Tylissos* 96 and pl. XXVII *c*, *d*; Bosanquet–Dawkins, *Unpublished Objects from Palaikastro* 119 and pl. XXV, P.

[11] Montelius, *op. cit.* 153 and fig. 484.

[12] *Ibid.* fig. 487.

418 (pl. 2, *c*, second from right, top row). L. 0·093 m.; W. of cutting edge 0·007 m.; thickness 0·004 m. Roughly rounded section at butt end. The working edge is flat but rather strongly pointed, and the tool may have been a drill or graver rather than a chisel.

A chisel or drill of similar shape and size, though more pointed, was found in Tomb 515 at Mycenae;[13] but the type is not very frequent.

Tweezers

412 (fig. 15, top centre). L. 0·05 m.; W. at tip 0·01 m., at hinge 0·004 m. One blade is snapped off half-way up.

Such tweezers are common in L.H. III graves, but often have more widely splaying ends. An example from Prosymna Tomb XXXIII, however, is closely similar in shape and size.[14]

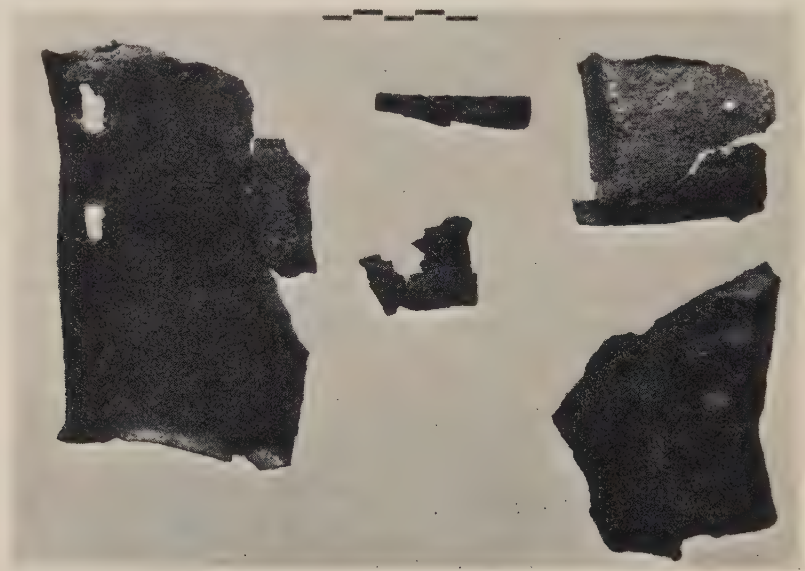


Fig. 15.—Bronze Tweezers, Etc.

Hammer-head

413 (pl. 2, *c*, second from right, bottom row, and fig. 16). L. 0·046 m.; W. 0·024 m. Both ends show marked signs of wear.

I can find no real parallel for this neat little tool, with its oval section and rectangular socket. The nearest is perhaps a small object in the Athens Acropolis hoard[15] which appears to have the ends of the head flattened, one parallel to the haft and the other at right angles to it; but the illustration is not very easy to interpret. Small bronze hammers are altogether rather rare in Mycenaean contexts; sledge hammers less so.[16]

Handles of Vessels

424 (pl. 2, *e*). Overall W. 0·235 m.; D. of end-plates 0·09 m.; strap of handle 0·035 × 0·007 m. in section. The end-plates are convex, with three rivet-holes in each; part of one rivet survives.

This perhaps came from a very big hydria. One from Dendra[17] is over half a metre high; and by analogous proportions ours would have been even larger. The angle of the plane of the handle to the attachment plates suggests it was fixed below the belly of the vessel on an inward-sloping surface, when the handle would project horizontally.

---

[13] A. J. B. Wace, *Ch. Tombs at Mycenae*, pl. XXIX 19. *Cf.* Bosanquet–Dawkins, *Unpublished Objects from Palaikastro* 119 and pl. XXV, O.

[14] C. W. Blegen, *Prosymna*, fig. 244, 2; *cf.* figs. 58, 512.

[15] Montelius, *op. cit.* 153, fig. 488.

[16] *E.g.* A. S. Murray, etc., *Excavations in Cyprus*, fig. 25, no. 1472.

[17] A. W. Persson, *Royal Tombs at Dendra*, pl. XXX 2, largest vessel; from chamber tomb no. 2, no. 29. For *shape* of handle, *cf. ibid.* pl. XXXI 6, on a bowl.

414 (FIG. 17). Fragment *c.* 0·06 × 0·055 m.

Part of a curved handle, probably vertical, from a large hydria [18] or krater.

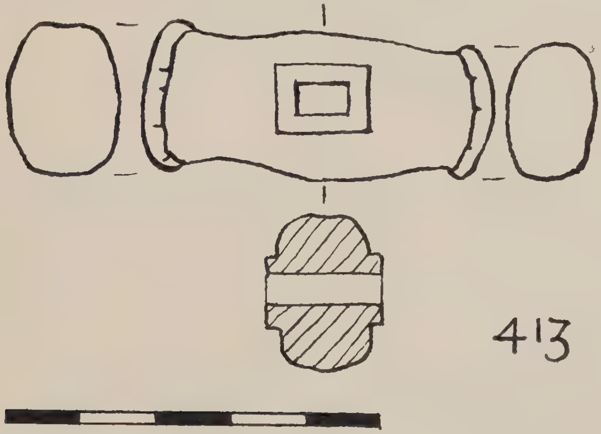


Fig. 16.—Hammer-head.

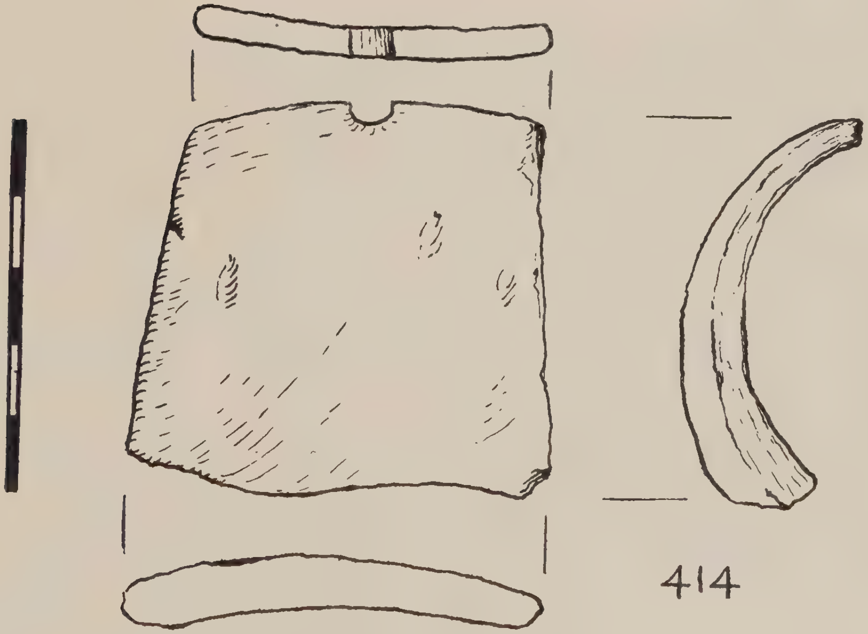


Fig. 17.—Fragment of Bronze Handle.

Fragments of Ingots

427 Twelve irregular fragments broken from ingots of the well known Minoan–Mycenaean 'ox-hide' shape.[19] Largest *c.* 0·13 × 0·11 m., and 0·025 m. thick.

The identification is clear from the typical rough and pitted surface, and from the curved and rolled edge of the ingot which some pieces show (see pl. 2, *a*, top two). The edge of one is

[18] As, *e.g.* from Dendra, *op. cit.* pl. XXXI 2.

[19] *BPI* 1904, 91 ff.; *Corolla Numismatica* 342 ff.; *PM* IV 652 ff.; Schaeffer, *Enkomi-Alasia* 27 ff. For the ingot from Mycenae, see Seltman, *Athens, its History and Coinage* 4 f., figs. 3, 4; Svoronos, *JIAN* IX (1906), 153 ff., pls. II–V.

flattened and has a V-shaped groove stamped in it. Another shows traces of punch-marks on both faces, conceivably signs of Linear Script, but too incomplete for identification. The shapes and weights of the fragments are apparently fortuitous. There is nothing to suggest that they are integral fractions of a standard.

428 Four smaller fragments, possibly of ingots, but if so of smaller size than those under no. 427. Largest measures 0·025 × 0·04 m. and only 0·012 m. in thickness.

MISCELLANEOUS FRAGMENTS

425 Fragment of thin sheet bronze, folded double, pierced with a number of small holes about one millimetre in diameter. Presumably from some form of strainer (FIG. 15, centre).

429 Three fragments of sheet bronze.

(*a*) (FIG. 15, left). About 0·125 × 0·08 m. The two torn holes probably represent lost rivets.
(*b*) (FIG. 15, top right). About 0·06 × 0·06 m. Two rivets remain in position, *c.* 0·015 m. apart, near one edge.
(*c*) About 0·08 × 0·08 m.

The bends in these fragments, running parallel to the edges, suggest that they may have come from the casing of squared beam-ends.

419 Four roughly rectangular fragments of bronze plate, each having rivet-holes (with rivets in one or two instances), usually near the edges. Largest 0·037 × 0·06 m. Thickness 0·001 m. Average diameter of rivet-holes 0·0025 m.

421 Five small fragments of thin sheet bronze. Largest 0·037 × 0·023 m. Some show traces of relief decoration, viz. a row of dots between parallel lines.

422 About twenty-five small fragments of sheet bronze, the largest *c.* 0·03 × 0·03 m., the smallest mere chips.

426 Very roughly circular lump of bronze (D. *c.* 0·12 m.), flat on one side, convex on the other, as though it had solidified at the bottom of a crucible.

These bronzes clearly constitute a ' founder's hoard '—a type of Bronze Age find much commoner in temperate Europe than in the more highly developed Aegean, where the supply and working of bronze were presumably conducted under more stable conditions.

All the objects in the hoard seem to be of L.H. III date, and are almost all of quite well known types. The unfamiliarity of a few—the adze (410), the chisels (415–417), the hammer (413) and to a less extent the sickles (401 ff.)—is perhaps due simply to the fact that most known Mycenaean bronzes come from graves, in which the repertory is limited to such articles as were used by everyone.[20] The exceptions in the Mycenae hoard are craftsman's tools, and presumably quite normal for the period. It is noticeable that adze, chisel, and sickles have parallels in the Athens Acropolis hoard, which also contains one or two other pieces (notably ploughshares) [21] otherwise unfamiliar to Mycenaean archaeology. The same general observation applies to another hoard of bronze tools and fragments, mainly if not wholly Mycenaean, discovered at Anthedon in Boeotia.[22]

These bronzes were found in a stratum which contained nothing post-Mycenaean. They lay only a few centimetres below the surface, for this area has been much denuded by weather and by cultivation. At about the same level and slightly to the north was a group of undecorated kylikes standing together upside down as though they had been placed in a pantry or storeroom. Their bases, however, had been broken by the plough. These kylikes are certainly to be assigned to a L.H. III date and probably to L.H. IIIB. Further evidence for dating can perhaps be recognised in the great deposit of broken pottery [23] that lay further to the north where practically no L.H. IIIC sherds occurred. Thus this group of bronzes cannot have been deposited before the L.H. IIIB phase. The Anthedon hoard from its composition is probably of approximately the same period, but it is unfortunate that there is no surviving evidence, ceramic or other, for its date.

F. H. STUBBINGS

---

[20] There are just a few exceptions, *e.g.* C. W. Blegen, *Prosymna* 255, 346 ff. and fig. 244.

[21] Montelius, *loc. cit.* I am indebted to Mr. H. W. Catling for drawing my attention to the peculiar interest of that hoard, as well as for other references.

[22] *AJA* VI 99 f., 104 ff., and pl. XV. My attention was drawn to this hoard by Prof. Wace.

[23] *BSA* XLVIII 23 (III).

MYCENAE 1939–1953

PART VIII. A WINGED-AXE MOULD

Among the burnt fill in Room 4 of the ' House of the Oil Merchant ' at Mycenae excavated in 1952 was found one half of a stone mould for casting a winged axe, a type of implement (or weapon) otherwise unknown in Late Helladic or other contemporary Aegean contexts. The mould is made of a fine-grained grey stone. Its shape will be clear from the illustrations. The cut surface is flat, and measures 0·167 × 0·067 m.; the underside is convex: at the centre the stone is 0·038 m. thick, but at the ends only about 0·02 m. In one corner of the flat face is a small round hole, the socket for a peg or knob which would have projected from the other half of the mould (now lost) to ensure the two fitted correctly. There was probably a similar hole at the diagonally opposite corner, which has been broken away. This break fortunately does not prevent us restoring with certainty the shape of the casting that would be produced from the complete mould. This is shown below.

Medial winged axes are common in the upper Danube basin and northern Italy, but rarely found farther south, and not at all in the Aegean.[1] It is known from surviving hafts that they were usually mounted (on a knee-haft) as axes (*i.e.* with the cutting edge in the same plane as the handle), but they could equally well be mounted as adzes. The four ' wings ' would be hammered round to grip the ends of the haft on either side; and the ledge or ridge (' stop-ridge ') across the blade immediately below the wings served to prevent the butt end from driving upwards and splitting the haft. As to their use, Professor Childe informs us that in Bavaria and Württemberg axes of similar form and size to that of the Mycenae mould occur in warrior-graves, and are therefore at least in that region weapons rather than craftsman's tools. Italian examples, however, are often larger, and may have had different uses.

An axe from the Mycenae mould would correspond with the type D 17, which Säflund regards as so characteristic of the Italian Terramara area that it may have been developed there. It would belong to his period Tm II B.[2] Professor Childe states that of numerous Italian parallels he has examined since studying the Mycenae mould none is very precisely dated, though all fall within the Italian Middle Bronze Age, ' perhaps a rather long period '. He regards the low stop-ridge of the Mycenae mould as a distinctive feature of this period and area. Actual moulds of this type are naturally much rarer than the axes themselves; but an example in bronze is known from Casalecchio near Rimini, and one in stone from Freghera (Como province).[3] The latter is broken, so that its similarity cannot be vouched for in detail. It appears to have a peg-hole very like the Mycenae one.

As the type is wholly foreign to the Aegean it seems reasonable to infer that the mould

---

Thanks are due to Professor V. G. Childe for valuable assistance in preparing this note, and for the drawing reproduced in the text.

(*Note:* Plaster casts of the Mycenae mould, kindly prepared by the National Museum at Athens, may be seen at the London University Institute of Archaeology and at the Cambridge University Museum of Archaeology and Ethnology.)

[1] G. Säflund, *Le Terremare* (= *AIRRS* VII), 167.

[2] *Op. cit.* 165, 167, and pl. 53, 3–5. *Cf.* O. Montelius, *Vorklassische Chronologie Italiens* 179 (fig. 430) and 181. Säflund, *op. cit.* 168, equates his Tm II B with the second half of Reinecke's period B; but this does not agree with his concordance on p. 11. The true equation is rather with Reinecke D.

[3] O. Montelius, *Civilisation primitive en Italie*, pls. 30, 6 and 29, 8; text 170, 168. The other faces of the Freghera stone were cut with other moulds.

was brought to Mycenae from Italy, possibly by a travelling smith. What it was doing in the ‘ House of the Oil Merchant ’ is harder to explain. It was not on a floor level, but its position suggested that it had fallen from a room above at the time of the destruction of the house, *i.e.*, as shown by pottery *in situ* in Room 4, in L.H. IIIB, or the latter half of the thirteenth century B.C.

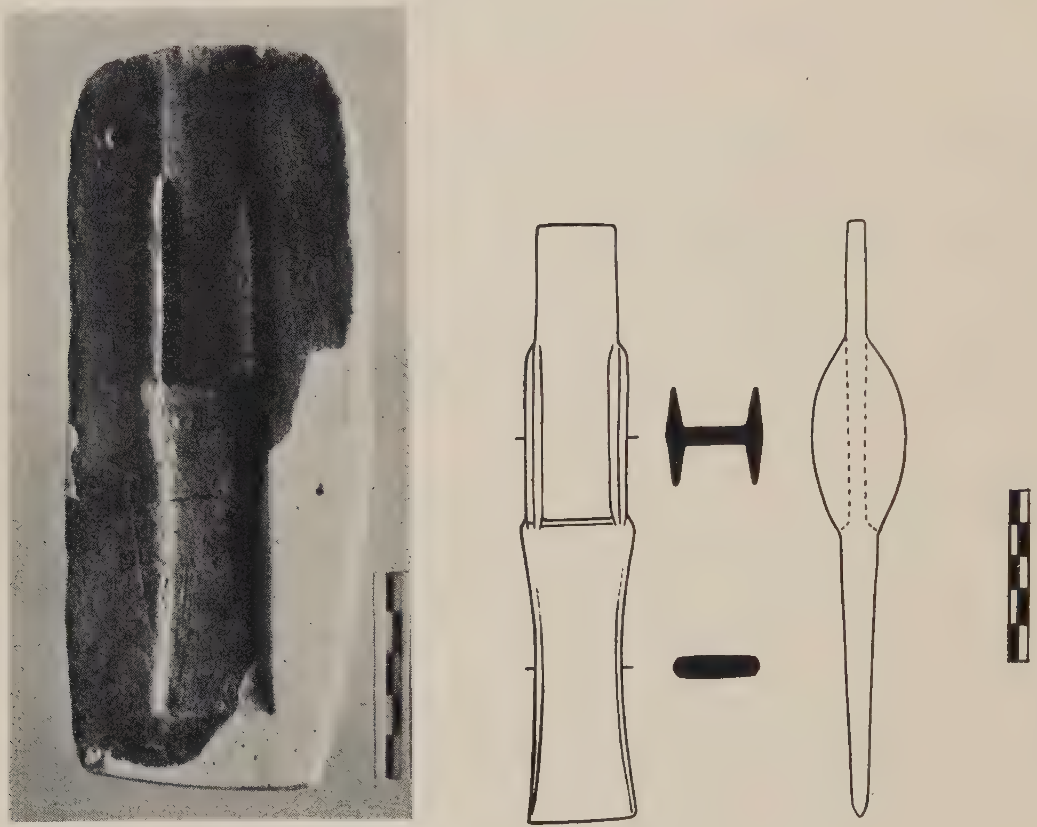


Fig. 18.—The Mould, with a Reconstruction of a Casting from it.

There seems to be no evidence at present of direct intercourse between Mycenaean Greece and the main Terramara area in northern Italy; but indirect contacts may well have been maintained through places farther south, like Scoglio del Tonno by Taranto. L.H. III pottery was found in considerable quantity at this site; and it is interesting that in the same level there was found a winged axe of a type very like that of the Mycenae mould,[4] though the circumstances of its finding unfortunately do not enable us to date it more precisely within the L.H. III period.

F. H. Stubbings

---

[4] *NdS* 1900, 441 and fig. 12. Some of the Mycenaean pottery has been discussed by Furumark in *Dragma Martino Nilsson dedicatum* 466 ff.; but I understand from Lord William Taylour, who has just completed a special study of Mycenaean pottery in the central Mediterranean, that much remains unpublished, and Furumark’s chronological conclusions may well need revision.

THREE LACONIAN VASE-PAINTERS

(PLATES 50–55)

The last comprehensive study of Laconian, by E. A. Lane, was published in 1936, and to this all subsequent work in the field, including the present article, is greatly indebted.[1] What follows is intended to develop one particular aspect of Lane's study, the identification of individual painters and their work. The need for exploration along such lines will hardly be disputed nowadays. Nevertheless, it may be worth referring to the succinct appraisal of such investigation by Dunbabin and Robertson.[2]

The attributions here published comprise almost all Laconian vases with figure decoration found outside Laconia, in so far as they have been made known, and a number of the pieces discovered at Sparta itself. They show that a total of three painters, two of them pupils of one, were with their workshop followers responsible for the output of practically all the more ambitious Laconian vases. It remains to be seen how far this conclusion is borne out by the finds from Samos, the one considerable body of Laconian material still unpublished.

I have taken this opportunity to publish, with the leave of the Museum authorities concerned, the outsides of a number of cups, of which the insides are known already. The outsides of cups have sometimes been neglected, wrongly so, since they can give a great deal of information. A profile view of the outside is rarely sufficient, and the full view of the ornament should always be given in a publication. Of new vases the Metropolitan Museum in New York has liberally passed on to me for publication pictures of a cup recently come into its possession, and in the case of two of the Louvre cups I have been allowed to give new pictures of the inside showing the results of recent work amongst the Campana fragments by F. Villard, which has enabled him to add substantially to fragmentary cups known before, as well as to add entirely new pieces to our stock of Laconian.[3]

Works attributed to painters are arranged as nearly as possible in chronological order. Unless I say otherwise they are cups. Where the interior picture of a cup is subdivided into segments or zones, a semi-colon is used to mark the division. Following the convention of *ARV*, I put the description of what remains in brackets if not enough is left to determine the subject of the whole picture. Next to the painter's work-number there will, where applicable, be found in brackets the number under which the particular piece appears in Dugas' catalogue of Laconian vases. D¹ refers to his list in *RA* 1907, ii, 48 ff.; D² to *RA* 1912, ii, 89 ff.; and D³ to *RA* 1928, i, 51 ff. Droop in *JHS* XXX (1910), 33–4 substantially adopted the list in D¹ with some additions (nos. 88–103), cited here with the name ‘ Droop ’ followed by their number.

---

[1] *BSA* XXXIV (1933–4), 99 ff. cited here as 'Lane'. I owe a personal debt of gratitude to Mr. Lane, who generously allowed me to use his collection of photographs and notes on Laconian vases. Abbreviations, apart from those in regular use in *BSA*, are self-explanatory. *AO* stands for *Artemis Orthia* ed. R. M. Dawkins; *BdA* for *Bollettino d'arte*. References to *CV* are as follows: the number following *CV* is always that of the museum volume; then where there is a consecutive run of plate numbers in the volume, that number is given. In other cases (*viz.* Louvre, Brussels, Rhodes) the national sequence number of the plate is quoted and indicated as such.

[2] *BSA* XLVIII (1953), 172, opening paragraph.

[3] Thanks are due to the authorities of the British Museum, the Metropolitan Museum of Art, the Antikensammlung at Munich, and the Louvre for photographs and permissions. The photographs of the Louvre vases reproduced here are my own, that of the Florence cup is by E. A. Lane, the rest were supplied by the Museums concerned. Mrs. Zancani Montuoro sent me pictures of the cup in Sorrento, Mr. R. M. Cook of a fragment in Erlangen. Sir John Beazley read through my manuscript, and I profited much from his comments and suggestions. I also owe to him my knowledge of some of the items in my lists. To all these scholars I am deeply indebted.

A. ARKESILAS PAINTER

He created the ‘ fine style ’ of Laconian, and in his best years was perhaps the most considerable of Laconian painters.[4] His early work, mostly very fragmentary, was recognised by Lane (Lane 130 ff.) and attributed to his Hephaistos Painter [Lane—H.], who, however, is none other than the Arkesilas Painter [Lane—A.], before his final stage (Lane 140–1). No. 14 links the late to the early work, being inseparable from pieces such as 12, 4, and 3. I find it difficult to discover the chronological order of his early cups (1–13), and therefore substantially retain Lane's order amongst them. This order is based upon the putative development of the handle ornament.

1. Samos[5] K 1206 fr. from Samos. I (legs of Harpies? *cf.* No. 3). I and A, Lane, pl. 36 b and d. [Lane—H.]
2. (D^1 26) Louvre E 663 ex Campana. I, lost; hounds after hare. I, *CV* I, *France*, pl. 25, 4. I, Lane, pl. 35 a. A, plate 51, *b*. [Lane—H.]
3. Villa Giulia from Cervetri. I, Boreads and Harpies, sphinx. I and A, *Archeol. Class.* IV, pll. 5–8. [Moretti—H.]
4. New York 50.11.7. I, introduction of Herakles (*cf.* Lane 163); boar. I and A, phot. Rome, Germ. Inst. A (palmette), Lane 175, fig. 24, 3. I and A, plates 50, *a* and 51, *a*. [Lane—H.]
5. (D^1 10) Brit. Mus. B 6 from Naucratis. I, (youth with pomegranate approaching seated man, *cf.* Lane 163); lion. I, Lane pl. 36 c. [Lane—H.]
6. (D^1 27) Brit. Mus. B 7 from Naucratis. I, lost; hounds after fox. I and A, *RA* 1907, i, 405. I, Lane pl. 35 b. [Lane—H.]
7. (D^1 25) Brit. Mus. B 5 from Naucratis. I, gorgoneion. I and A, *RA* 1907, i, pl. 4; 1907, ii, 50. I and A, Lane pl. 37 a; p. 132, fig. 14 a. A, plate 51, *c*. [Lane—H.]
8. Munich SL 513 (part), fr. from Naucratis. I (exergue?), fawn to right (hind leg preserved).
9. (D^1 54–5) Brit. Mus. B 7 frr. from Naucratis. I, (kneeling warrior); (horse), all part of an ‘ Achilles at the fountain ’; *cf.* Lane 164. I and A, *RA* 1907, i, 381; 1907, ii, 53 fig. 24, 2, 7, 4, 9. I, Lane, pl. 36 g. [Lane—H.]
10. Samos fr. from Samos. I, lost; (youth and horse, *cf.* no. 9). I, Lane, pl. 36 f. [Lane—H.]
11. Leipsic frr. from Cervetri. I, Herakles and Hydra. I, Lane, pl. 34 b. [Lane—H.]
12. Oxford G 133.4 fr. from Naucratis. I, Herakles and Hydra. I, Lane, pl. 34 c. [Lane—H.]
13. Samos fr. from Samos. I, (head of woman). I, Lane, pl. 36 a. [Lane—H.]
14. (D^1 11) Vatican 1298 from Cervetri (cf. *BdI* 1835, 41). I, Prometheus and Atlas; column capital and floral. I and A, Albizzati, pl. 17, 220. I, phot. Alinari 35838. I, Schaal, *Griech. Vasen*: *Schwarzfig.* fig. 27. I, Lane, *Greek Pottery*, pl. 31 a. I, Rumpf, *Malerei u. Zeichnung*, pl. 14, 5. Late. [Lane—A.]

---

[4] The dolphin cup in Taranto, Lane, pl. 30 *a*, which has been called the finest of all Laconian vases, may with its companion piece, Lane, pl. 30 *b*, turn out to be his work but as yet the links are too tenuous for more than a suggestion.

[5] Many vases and fragments in Samos were destroyed or lost during the war. I have no information on the fate of any particular piece. Samos might therefore mean ‘ lost ’ or ‘ destroyed ’.

15. (D^1 19) Brussels R 401. I, symposium; floral. I, Richter, *Anc. Furniture* fig. 181. A, Homann-Wedeking, *Arch. Vasenornamentik* fig. 13. I and A, *CV* III, *Belg.* pl. 106, 6. Late. [Lane—A.]

16. (D^1 12) Cab. Méd. 4899 from Vulci. I, Arkesilas; continuation of subject. I, Pfuhl, *MuZ* III, fig. 193. I and A, *FR*, pl. 151. I, phot. Giraudon 16889. I and A, *CV* I, pll. 20; 21; 22, 2–3. I and A, Buschor, *Griech. Vasen* 75; 74. I, Rumpf, *Malerei u. Zeichnung*, pl. 14, 6. Late. [Lane—A.]

The following are probably his work:

1. Palermo (?) fr. from Selinus. I, plain? A, *MA* XXXII 310, fig. 128. [Lane—H.]

2. (D^1 21) Vienna, Kunsthist. Mus. 3571 ex Castellani. I and A, floral. A, Masner 14; whence Pfuhl, *MuZ* III, fig. 195. [Lane—A.]

3. (D^1 59) Brit. Mus. B 7 fr. from Naucratis. I, whirligig from centre of tondo (*cf.* Lane 133 n. 3). I and A, *RA* 1907, ii, 56, fig. 28. I, Lane, pl. 35 f. [Lane—H.]

4. (D^1 83) Olympia fr. from Olympia. I, gorgoneion. I and A, *Olympia* IV 202 no. 1302. [Lane—H.]

5. (D^3 117) Naples fr. from Cumae. I, symposium. I and A, *MA* XXII, pl. 60, 1. [Lane—A.]

Compare also:

(Droop 101) New York 22.139.77 ex Schliemann. I, floral. I and A, *JHS* XXX 13–14. I and A, *BullMetrMus* 1924, 99, *figs.* 4–5. A, Richter, *Handbook Class. Coll.*[6] 60. [Lane—H.]

(D^1 48) Brit. Mus. B75 and Athens, British School frr. from Naucratis. *RA* 1907, i, 401 (Brit. Mus. frr.).

Manner of Arkesilas Painter

Mostly debased versions of the painter's late style. The majority are later than the known works of the Arkesilas Painter, but in motives and subject matter they draw heavily on his repertoire.[6] Several, by one hand, have already been put together by Lane under his Rider Painter (Lane 150–1) [Lane—R.]. He also connected 1 with his Hephaistos Painter.

1. Sparta 1016 lakaina from Sparta. A, winged figure and others. B, fighting. A and B, *BSA* XV, pll. 3–4; whence (A) Pfuhl, *MuZ* III, fig. 77; *AO* pll. 7–8. A, *JHS* XXX 4. [Lane—H.]

2. Samos fr. from Samos. I, (man to right, buttocks and middle preserved). A, pomegranate frieze, bands, frieze of tongues.

3. Rhodes 10.711 from Ialysos. I, return of Hephaistos; god or hero with lion (*cf.* Lane

---

[6] The pomegranate frieze framing the inside tondo, a commonplace in the Arkesilas Painter's early work, but abandoned by him in his latest cups, survives here in nos. 5 and 13. In details of drawing, as an instance the horizontal line above the pubes, which occurs in, *e.g.*, Arkesilas Painter nos. 12 and 14, is found here on no. 11. More notable still is the dismemberment, in the workshop, of iconographic inventions taken from the Masters' works or pattern books. Thus the building in nos. 5, 6, 10, 15 is probably derived from the fountain house in a picture of Achilles at the fountain by the Arkesilas Painter; the hare in the exergue of no. 15 no doubt once had its place under Troilos' horse, as it also has in the New York cup by the C Painter (Beazley, *Development of Attic Black-Figure*, pl. 8, 2). Perhaps the rider on nos. 17, 21, 22 was once none other than Troilos himself. A complete Troilos cup by the Arkesilas Painter will surely turn up one day and show us the scattered and abducted elements in their proper places.

168). I and A, *Cl. Rh.* III 122; pl. B; 123. I and A, *CV* I, *Italy* pl. 427; pl. 429. I, Buschor, *Gr. Vasen* 73. A, Lane, *Greek Pottery*, pl. 31 b. [Lane—H.]

4. Sparta 77.196–16.194 from Sparta. I, demons. I and A, *BSA* XIV, pll. 3–4; *AO*, pll. 9–10. Close to the Painter.

5. Villa Giulia from Bisenzio. I, capture of Silenos; subject continued; lions. I and A, *BdA* 1937–8, 155–6. I, *AA* 1937, 409–10. I (part), *AA* 1941, 49, fig. 12.

6. (D^1 14) Cassel from Samos. I, Trophonios; birds and floral. I, Boehlau, *Nekropolen* pl. 10, 4; whence *ÖJh* X 10. Close to the Painter.

7. ($D^{1 \text{ and } 3}$ 45) Florence 3882. I, lyre-player and dancers; floral. I and A, *BdA* 1921–2, 163; 165; 167; whence (I) *RA* 1928, i, 53.

8. Louvre Camp. 10492 frr. ex Campana. I, (sphinx to r., confronting a face, the rest being lost, to l.); in segment above, palmette complex. A, animal frieze below handle zone: pair of cocks confronted across bud, pair of sphinxes confronted, cock. Touch of Hunt Painter.

9. (D^1 15) Louvre E 666 ex Campana. I, hero and bull; floral. I, *CV* I, *France* pl. 25, 7. A, plate 54, *a*.

10. (D^1 17) Louvre E 662 dinos ex Campana. A, Herakles and Centaurs; below, animal frieze. B, komasts, Achilles at the fountain; below, animal frieze. A and B, *CV* I, *France* pll. 29–30. A and B (part), Lane pl. 42 a. B (part), Rumpf, *Malerei u. Zeichnung*, pl. 14, 7. Animal frieze, *RA* 1907, i, 388.

11. (D^1 5) Cab. Méd. 4894 from Nola. I, blinding of Polyphemos; fish. I, Schaal, *Griech. Vasen: Schwarzfig.* fig. 26. I and A, *CV* I, pl. 22, 1 and 4; pl. 23, 5.

12. Taranto from Taranto. I, lyre-player and symposiast; animal frieze; komasts. I and A, Lane pl. 47; 48 a; p. 132, fig. 14 e. Touch of Hunt Painter.

13. (D^1 33) Würzburg 166 ex Feoli. I, symposium; cocks. I and A, Langlotz, pl. 28. [Lane—R.]

14. Erlangen University 838 fr. I, (eagle flying to right and edge of another wing).

15. (D^1 4) Louvre E 669 ex Campana. I, Achilles at the fountain (*cf.* Lane 164); hare. I, Pfuhl, *MuZ* III, fig. 197. I, *CV* I, *France* pl. 25, 12; pl. 26, 2. I, *Encycl. photogr. de l'art* II, pl. 262, b. [Lane—near R.]

16. (D^3 128) Leipsic from Cervetri. I, komasts; floral. I, *AA* 1923–4, 85–86; whence *RA* 1928, i, 63. [Lane—R.]

17. ($D^{1 \text{ and } 3}$ 7) Leningrad St. 183 from Canino. I, rider; snake. A and I, *JdI* XXXVIII–XXXIX 31 and pl. 1.

18. Izmir fr. from Old Smyrna. I, (bird to r.); (bird flying to r.).

19. Samos fr. from Samos. I, (lower part of three legs, two turned to r., one to l.); upper part of palmette. Should perhaps be put earlier.

20. (D^3 123) New York 14.30.26 from Sardis. I, sphinx. I and A, *AJA* 1921, pl. 4. I, Lane pl. 45 a. I, Richter, *Handbook of the Greek Coll.*, pl. 28 g. [Lane—R.]

21. (D^1 8) London B1. I, rider; floral. I, Herford, *Handbook of Greek Vase Painting*, pl. 2, c, bottom; Pfuhl, *MuZ* III, fig. 194. I, Lane pl. 45 b; Seltman, *Approach to Greek Art*, pl. 26, b. [Lane—R.]

22. (D^1 9) Louvre E 665 ex Campana. I, rider; floral. I, *CV* I, *France* pl. 25, 10; pl. 26, 3. [Lane—R.]

23. (D^1 36) Brit. Mus. B 3 from Sicyon. I, komasts; floral. I, Herford, *Handbook of Greek Vase Painting*, pl. 2, c, top; Pfuhl, *MuZ* III, fig. 196. I, Lane pl. 46 a. A, plate 51, *d*. [Lane—R.]

Compare also the following, which should come from the same workshop:

(D^1 31) CAB. MÉD. (de Ridder 191) from Vulci? I, gorgoneion. I and A, *CV* I, pl. 23, 1–3. [Lane.]

(Droop and D^3 93) MUNICH 381. I, floral. I, Sieveking and Hackl, pl. 13. A, FIG. 1.

Perhaps also:

LOUVRE hydria ex Campana. A, two sphinxes confronted across palmette complex. B, two cocks confronted across palmette complex.

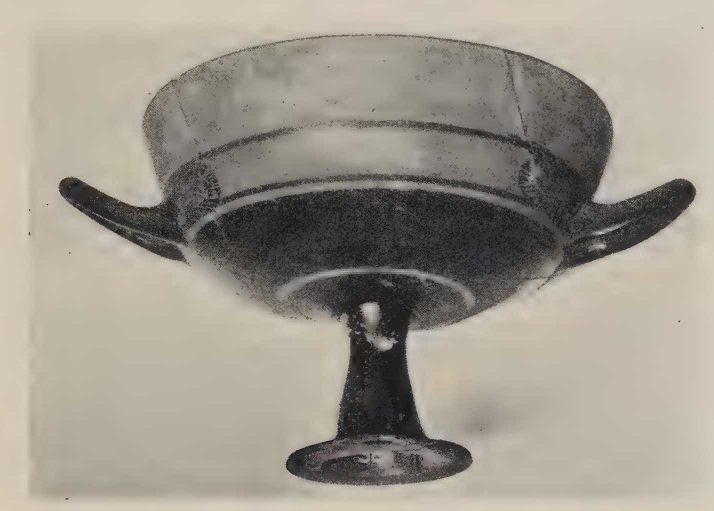


FIG. 1.—MUNICH 381.

B. NAUCRATIS PAINTER

His work connects with the late period of the Arkesilas Painter. In his early and middle period he displays great liking for decorative friezes and colourful floral patterns, but his work, on the whole, is unenterprising, except for an interest in representing drapery folds, which is also characteristic of several works in his manner.

Some of his paintings have previously been recognised by Lane (Lane 139) under his Naukratis Painter [Lane—N.], and his Pegasos Painter [Lane—P.]. Rumpf (*AA* 1923–4, 80–1) associated 6 with 12 and 13, Miss Tankard 2 and 3 and 7 (*BSA* XXIX 108 ff.), Lane 7 with 9, with which he compared 15.

1. (D^2 110) TARANTO from Taranto. I, Zeus and eagle. I, Cook, *Zeus* I, pl. 42. I, Lane, pl. 37 b. I, Quagliati, *Museo Naz. di Taranto* 52 top.
2. (D^1 35) LOUVRE E 667 ex Campana. I, symposium; in centre floral. A, animal frieze. I and A, *CV* I, *France* pl. 25, 11; pl. 27, 1–2. I (part), Lane, pl. 42 b. A, *RA* 1907, i, 387. [Lane—N.]
3. (D^1 23) BRIT. MUS. B 4 from Naucratis. I, Artemis attended by demons. A, animal frieze. I and A, Petrie, *Naukratis* I, pls. 8–9. I, Studniczka, *Kyrene* 18. A and I, PLATES 52, *a* and 53, *c*. [Lane—N.]
4. (D$^{2 \text{ and } 3}$ 109 part) MARSEILLES fr. from Marseilles. I, (winged figure). I and A, Vasseur, *L'origine de Marseille*, pl. 11, 15–16. [Lane—N.]

5. (D^1 1) Louvre E 668 ex Campana. I, Zeus and eagle. I (from older drawing), Cook, *Zeus* I 93. I, *CV* I, *France* pl. 25, 6; pl. 26, 4. A, fig. 2.
6. (D^1 18) Louvre E 672 ex Campana. I symposium; siren and birds. I, *CV* I, *France* pl. 25, 2. I and A (with new fr.), plates 52, *b* and 53, *a*.[6a]
7. (D^1 29) Louvre E 661 volute-krater ex Campana. A and B, animal frieze. A and B, *CV* I, *France* pl. 28, 1–2. A, phot. Alinari 23674. Side view, plate 55, *b*.
8. Samos frr. krater from Samos. Preserved, of animal frieze, are feline to l. another fr. with bird sitting on edge of floral, then rear parts of horse and bird flying to r. Other frr. with pomegranate frieze and tongues.
9. (D^1 32) Louvre E 660 hydria ex Campana. A and B, lions confronted. A and B, *CV* I, *France* pl. 28, 3–4.
10. (D^1 42) Munich 382 from Vulci. I, winged demon. I and A, Sieveking and Hackl, pl. 13 and p. 34. A, Buschor, *Griech. Vasenmalerei*² 116. [Lane—N.]
11. (D^1 34) Louvre E 664 ex Campana. I, sphinx; fish. I, *CV* I, *France* pl. 25, 8. I and A, phot. Giraudon 33540. I and A, Lane, pl. 44 c and p. 132, fig. 14 c.
12. ($D^{1 \text{ and } 3}$ 46) Leipsic from Cervetri. I, Pegasus. I and A, *AA* 1923–4, 80; 79. [Lane—P.]
13. (D^1 30) Brit. Mus. B 2 from Capua. I, youth with two winged horses. I, Lane, pl. 41 c. [Lane—P.]
14. (D^1 37) Munich 384 from Vulci. I, man and woman seated (Zeus and Hera?); lions. I, Sieveking and Hackl, pl. 13; whence *AM* XLI 182. I (from older drawing), Cook, *Zeus* I 94, fig. 67. A, fig. 3. [Lane—P.]
15. (D^3 118) Bryn Mawr from Castel Campanile. I, combat; lions. I, *AJA* 1916, pl. 11; whence *RA* 1928, i, 58. I, *Journ. Walters Art Gallery* III 112 (see there also for provenience).

The following are probably his work:

1. Samos frr. from Samos. I, (women running in procession); perhaps several other segments lost. A, (eagle to r., lion to l., part of animal frieze). I, Lane, pl. 39 e.
2. Sparta from Sparta frr. of one or two lakainai. A, animal frieze. A (part), *BSA* XV 32 fig. 8, o; *AO* 89, fig. 60, o. A, Lane, pl. 38 a, bottom row, 2–4.
3. Sparta 3230 fr. from Sparta. I, floral. A, (winged feline and cock). I and A, *BSA* XXVIII 69; 71, fig. 13, c.
4. Cyrene fr. from Cyrene. I, floral. A, (palmette and cock). I and A, *Africa Italiana* IV, pl. 2, 1–2.
5. Samos fr. from Samos. I, lotus frieze and pomegranate frieze on lip; then lotus frieze. A, plain lip except for black band at edge; plain handle zone, incised palmette (like Naucratis Painter no. 6). I and A, phot. Athens, Germ. Inst. Samos 273 and 272 top left.
6. Samos K 1188 fr. from Samos. I, winged demon. I and A, Homann-Wedeking, *Arch. Vasenornamentik*, fig. 11–12.
7. Bergama 435 fr. hydria? from Pergamon? (*cf.* E. Akurgal, *Bayraklı* 24; 70). A, palmette and lotus frieze; below, pomegranate chain.

Compare also the following:

($D^{1 \text{ and } 3}$ 47) Villa Giulia Ming. 423 volute-krater ex Castellani. A and B, floral. A and B, *BdA* 1923–4, 496–7; whence (A) *RA* 1928, i, 54. A and B, Mingazzini, *Coll. Castellani*, pl. 42. A, Rumpf, *Malerei u. Zeichnung*, pl. 10, 9. B, Buschor, *Griech. Vasen* 77, fig. 87.

[6a] For plate 52, *b* I am indebted to M. P. Devambez of the Louvre.

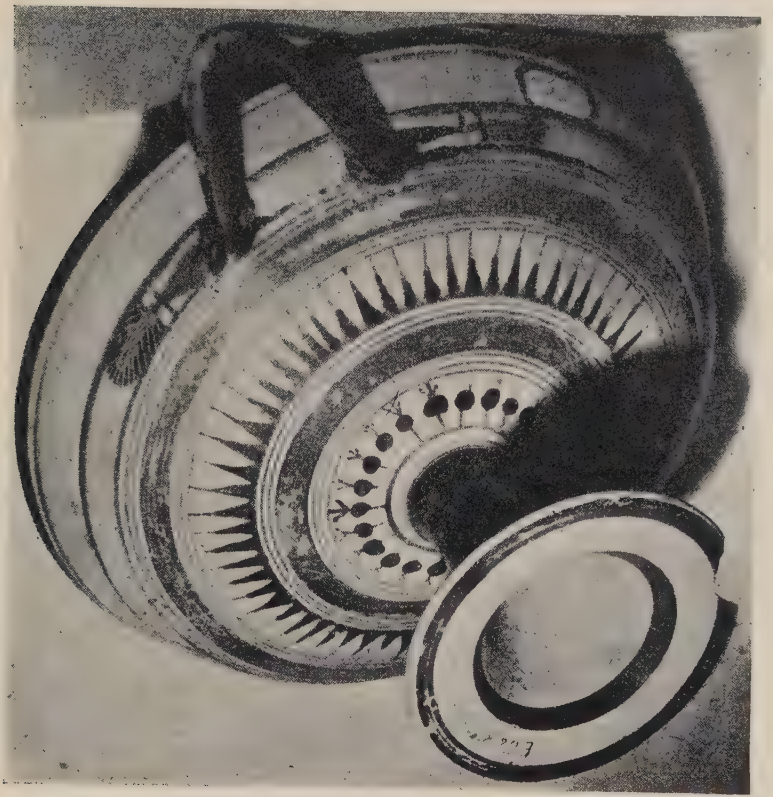


Fig. 2.—Louvre E 668. Naucratis Painter No. 5.

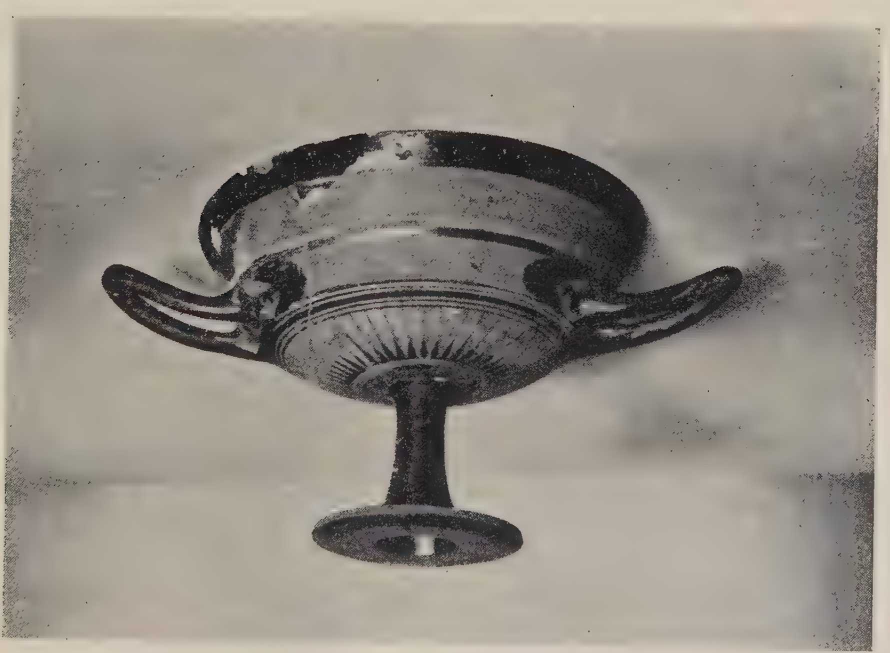


Fig. 3.—Munich 384. Naucratis Painter No. 14.

x

SAMOS K 1309 fr. from Samos. I and A, floral. I and A, Homann-Wedeking, *Arch. Vasenornamentik*, figs. 9–10.

(D¹ 20) OXFORD 1885. 1325 from Naucratis. I and A, floral. I and A, *RA* 1907, i, 398. [Lane.]

MANNER OF NAUCRATIS PAINTER

1. ATHENS 15371 oinochoe from Sparta. A, animal frieze. A, *BSA* XXVIII, pl. 7. [Tankard.]
2. SPARTA oinochoe from Sparta. A, animal frieze. A (part), *BSA* XIV 38. A, *AO* 93. Close to the Painter.
3. TARQUINIA aryballos from Tarquinia. A, animal frieze. A, Lane 138. Close to the Painter.
4. (D¹ 71) CASSEL aryballos from Samos. A, rider. A (part), Boehlau, *Nekropolen*, pl. 4, 4. Close to the Painter.
5. (D¹ 2) CASSEL T. 354. I, Zeus and Hermes; birds and floral. I and A, *AA* 1898, 189; whence (I) Cook, *Zeus* I 94, fig. 66. I, Lane, pl. 46 b.
6. (Droop 99) ATHENS 13910. I, Philoctetes (*cf.* Pfuhl, *MuZ* I §§ 229 and 232). I and A, *JHS* XXX 19; 20.
7. SAMOS K 1428 from Samos. I, citharode (Apollo?) and seated goddess; cocks. I and A, phot. Athens, Germ. Inst. Samos 2221 and 2222.

C. HUNT PAINTER

A pupil of the Arkesilas Painter, as Lane saw. He had a long career of some twenty-five years or more, and was the most prolific of Laconian vase-painters. His early and early-middle period is marked by an affectation for 'porthole' compositions (1, 3, 4, 14) and for the use of inscriptions (3, 6, 9, 11), the latter of which his teacher, the Arkesilas Painter, may in turn have taken over for the name-cup in Paris (Arkesilas Painter no. 16). His figures are always neat, but in his latest work they shrivel into shadows of their former selves.

I have adopted the name from Lane (Lane 141 ff.). In several cases, where Lane connected works with the painter without making a firm attribution, I put [L.] behind the entry. Rumpf (*AA* 1923–4, 83–4) saw that 4, 5, and 9 were by the same hand; 20 and 21 were seen to be close to the Hunt Painter by P. N. Ure.

1. (D¹ 3) BERLIN 3404 from Tarquinia. I, warriors' return; cocks. I and A, *JdI* XVI, pl. 3 and p. 190; whence I, Pfuhl, *MuZ* III, fig. 199. I, Neugebauer, *Führer* II, pl. 15; *Crit. d'Arte* I, pl. 150; *JHS* LIX, pl. 10 a; Schuchhardt, *Kunst d. Griechen* 128, fig. 99; Buschor, *Gr. Vasen* 76. [Lane.]
2. (D¹ 28) LOUVRE E 671 ex Campana. I, warriors; lions. I, *CV* I, *France* pl. 25, 9. A and I (with new fr.), PLATES 53, *b* and 54, *c*. [Lane.]
3. CYRENE fr. from Cyrene. I, quarrel of heroes (Seven against Thebes); Triton (?). I and A, *AJA* LIV 312. [Beazley.]
4. (D¹ 13) LOUVRE E 670 ex Campana. I, boar hunt; fish. I, *CV* I, *France* pl. 25, 5; pl. 26, 1. I, Lane, pl. 41 a. A, PLATE 54, *b*. [Lane.]
5. LEIPSIC frr. from Cervetri. I, fish. [L.]

6. RHODES hydria from Ialysos. A, combat; floral. B, komasts; animal frieze. A and B, *Cl. Rh.* VIII 87–94; pl. 4. A and B, *Crit. d'Arte* I, pl. 146, fig. 1 a, 2; pl. 147, fig. 3; pl. 148; pl. 149; pl. 151, fig. 11. A and B (main frieze), *AA* 1936, 169–70, fig. 21. A, Buschor, *Gr. Vasen* 77, fig. 88. [Lane.]
7. LOUVRE fr. ex Campana. I, (legs of two males to r., lower part of spear (?) on l.).
8. OXFORD 1935.192 from Attica. I, siren. I, Lane 142. [Lane.]
9. (D^{3} 127) LEIPSIC from Cervetri. I, Zeus and Hermes (?); sea horse. I and A, *AA*, 1923–4, 82; 81. I, *JHS* LII 26, fig. 2. [Lane.]
10. SPARTA fr. from Sparta. I, (head of youth). I, *BSA* XIV 42, fig. 8, m; *AO* 104, fig. 77, m. I, Lane, pl. 41 d. [Lane.]
11. SAMOS fr. from Samos. I, Pygmies and Cranes; Herakles and Hydra. A, (feet of komasts?). I, *AM* LIV, Beil. 16, 1. I and A, phot. Athens, Germ. Inst. Samos. [L.]
12. SPARTA fr. lakaina (?) from Sparta. A, (sphinx and floral). A, *BSA* XV 32, fig. 8, m; *AO* 89, fig. 60, m.
13. (D$^{1 \text{ and } 3}$ 44) FLORENCE 3879. I, komasts and syrinx-player; birds and floral. I, *BdA* 1921–2, 169; whence *RA* 1928, i, 52. A, Lane 132, fig. 14 d.[6b] I, PLATE 55, *a*. [Lane.]
14. (D^{1} 6) LEIPSIC and FLORENCE ex Campana (*cf.* also *JdI* XI 177, no. 1). I, boar hunt; birds and floral. I, *JdI* XVI 191 (Leipsic) and *BdA* 1928–9, 171 (Florence). [Lane.]
15. SPARTA fr. krater or chalice? from Sparta. A, (komasts). A, *BSA* XXVIII 71, fig. 13 d. [L.]
16. SAMOS fr. from Samos. I (exergue), birds confronted across palmette. I and A, phot. Athens, Germ. Inst. Samos 273 and 272, bottom right.
17. (D^{1} 22) CASSEL from Samos. I, nymphs bathing; cocks and floral. A, animal friezes. I and A, Boehlau, *Nekropolen*, pl. 11.
18. Once KAVALLA [7] from Neapolis. I, Herakles and Erymanthian boar; birds and floral. I and A, *AE* 1938, 124; 123. I, *AA* 1937, 157.
19. (D^{1} 16) CAB. MÉD. 4920. I, komasts; birds. I and A, *CV* I, pl. 22, 5–7; 23, 4. [Lane.]
20. SYRACUSE 9319 from Syracuse. I, Perseus. I and A, *Studies presented to D. M. Robinson* II, pll. 13 a; 14 a.
21. SYRACUSE 9320 from Syracuse. I, lyre-player. I and A, *Studies . . . Robinson* II, pll. 13 b; 14 b.
22. TARANTO Contr. Vaccarella, Via Japigia, 1–3–35, from Taranto. I, goat to r. [L.]

The following are probably his work:

1. SPARTA fr. oinochoe from Sparta. A, (sphinx). A, *AO* 96, fig. 66, c.
2. (D$^{2 \text{ and } 3}$ 109 pt.) MARSEILLES fr. from Marseilles. I, uncertain. A, uncertain. I, Vasseur, *L'origine de Marseille*, pl. 11, 23.
3. SAMOS fr. from Samos. I (exergue?), (cock, rear extremities preserved). A, palmette as on Hunt Painter no. 4.
4. SAMOS fr. from Samos. I, (feet and part of dress of one to r.); (bird to l.). I and A, phot. Athens, Germ. Inst. Samos 273 and 272, bottom left.
5. LEIPSIC frr. from Cervetri. I, drumstick border of tondo as on Hunt Painter nos. 20 and 21.
6. SPARTA fr. shape?, from Sparta. A, (goat and floral). A, *BSA* XV 36, fig. 12, f; *AO* 102, fig. 75 f.

[6b] But the lower part of the foot is alien, belonging to a Little-Master Cup.

[7] See *Works of Art in Greece . . ., Losses and Survivals* (London, 1946), 17–18.

7. Once KAVALLA[7] fr. from Neapolis. I (exergue), bird and floral. I and A, *AE* 1938, 122, fig. 10, 2; 121, fig. 9, 2.

Compare also:

Once KAVALLA[7] fr. from Neapolis. I and A, *AE* 1938, 122, fig. 10, 1; 121, fig. 9, 1. *Cf.* Hunt Painter no. 8 (outside).

MANNER OF HUNT PAINTER

1. (Droop 91) MUNICH 385 from Italy? I, fish. I, Sieveking and Hackl, pl. 13. I, *RA* 1912, ii, 95. Perhaps by the Painter. [Rumpf; L.]
2. NEW YORK, Joseph V. Noble. I, lion. I and A, *Auction Sale* (Basle) *XIV, June 19, 1954. Monnaies et Médailles*, pl. 11, 52. Quite likely by the Painter.
3. ATHENS frr. from Perachora (4091). I, lion. I (part), Lane, pl. 38 b.
4. SORRENTO, Coll. Fluss from Sorrento. I, youth attacking lion; fish. I and A, Mingazzini and Pfister, *Surrentum*, pl. 45, 180–1.
5. SAMOS K 1189 (at present in Rhodes)[8] from Samos. I, Herakles and lion; cocks and floral. I, *AA* 1937, 207, fig. 3. A, Homann-Wedeking, *Arch. Vasenornamentik*, fig. 14. Imitates early work of the Hunt Painter.
6. SPARTA fr. lakaina from Sparta. A, animal frieze. A, *BSA* XV 32, fig. 8, y; *AO* 89, fig. 60, y.
7. VATICAN from Vulci. I, lyre-player and dancers; floral. I, Beazley and Magi, *Raccolta Guglielmi* I, pl. 1, 3.
8. (D^1 24) LONDON B 58 hydria from Vulci. A and B, gorgoneion and animal friezes. A, Herford, *Handbook of Greek Vase Painting*, pl. 2, b; Pfuhl, *MuZ* III, fig. 198. A (part) and B, Lane, pl. 44 a, b; pl. 43. B, Lane, *Greek Pottery*, pl. 29. Touch of the Arkesilas Painter's manner.
9. (Droop 92) MUNICH 383 from Italy? I, boar hunt; uncertain. I, Sieveking and Hackl, pl. 13. [Lane.]
10. (D^1 43) BONN 62 h fr. krater? from Tarquinia. A, hunt. A, *AA* 1891, 17, top r.
11. (Droop 95) MUNICH 386. I, goat. I and A, Sieveking and Hackl, pl. 13. More remote and has some links with manner of the Naucratis Painter. [L.]
12. (D^1 87 = Droop 98) ATHENS 12680. I, head and shoulders of man. I and A, *JHS* XXVIII 178, fig. 3; 176, fig. 1 b; 177, fig. 2 b; 179, fig. 4 left; whence (I) Cook, *Zeus* I 96.

Two very late but carefully executed cups stand apart from the rest and from each other; elements derived from the styles of the Naucratis and Hunt Painters mingle:

(D^1 41) HEIDELBERG from Boeotia. I, Chimaera. I, *JdI* XVI 193. I, *JdI* XL 150. I, Schaal, *Griech. Vasen in Bremen* 23 top. A, Lane 132, fig. 14, f.

($D^{2 \text{ and } 3}$ 114) TARANTO from Taranto. I, Cyrene and lion. I and A, FR III 212; whence *RA* 1928, i, 55.

A word should be said on chronology. The Arkesilas cup (Arkesilas Painter no. 16) is, of course, important, though it supports rather than establishes the chronology. It must have been painted in the sixties, for we can hardly allow too long an interval between the death of King Arkesilas and the painting of the cup.[9] But if this is the date for the Arkesilas Painters' latest known work, we are obliged to go back at least a decade, and probably more, for his earliest productions, for the painter's late style shows substantial changes from his earlier work. Unfortunately the early development of the painter's style is not as clear as it might be, and it would be unwise to lay down too rigid a time scale; nevertheless, it is not unreasonable to think that his earliest work might go back to the eighties of the sixth century. This is what we should expect on other grounds, such as his consistent use in earlier works of the double line for the shoulder and other muscles of felines, which is found in Attic at the time of Sophilos, and before him in works by the Gorgon Painter.

---

[8] See *Works of Art in Greece . . ., Losses and Survivals* 27. Fragments with the rear portion of the lion were, however, in Samos in the summer of 1954. They were presumably separated when the cup was removed.

The Hunt Painter must have started his career before the Arkesilas cup was painted, for there are signs in this cup of influence exerted by the younger man upon his master.[10] I take it that pieces like the Rhodes hydria (Hunt Painter no. 6) are its contemporaries or at any rate not much later. This hydria was found in a tomb the other contents of which suggest a date about 560, with a margin in either direction. Comparison with Attic suggests about 560 for the hydria itself, neither much earlier nor later.[11] If this dating is right, the Arkesilas cup fits well enough into the middle of the sixties, and the earliest work of the Hunt Painter will accordingly go back to the beginning of the decade. Yet the Hunt Painter goes on for a long time. The Syracuse cups (nos. 20 and 21) come from a tomb group (Fusco, tomb 3; *NdS* 1891, 406) not earlier than the mid-century and probably somewhat later; [12] no. 22 is said to have been found with Attic pottery of about 540 B.C., and the Kavalla cup (no. 18) should come about 540.

The Naucratis Painter's earliest work, the Taranto cup (no. 1), comes from a Middle Corinthian tomb (cf. *NC* 304, no. 834; Lane 181, no. 5). Its outside is said to be very like the Rhodes cup, Manner of Arkesilas Painter no. 3.[13] This Rhodes cup, being in the manner of the later work of the Arkesilas Painter, will not be earlier than the late seventies or even the early sixties.[14] This, then, is the time when the Naucratis Painter started work, about the same period as the beginnings of the Hunt Painter, though his career did not last as long. None of his known works go much, if at all, beyond the middle of the century.

---

[9] It still seems to me most probable that the Arkesilas on the cup is the King of Cyrene, though one cannot be absolutely certain (see the excellent account Lane 161–2). To deny the very possibility and substitute for the king a Spartan merchant, as Rumpf has recently done (*Malerei und Zeichnung* 54; *Archäologie* I 117–18), seems to me perverse. Granted the identity, there is still the problem of dating the reign of Arkesilas II and also the question whether the reign can be more than a *terminus post quem*.

The best recent discussions on the date of Arkesilas are by H. R. W. Smith, *The Hearst Hydria* 273 n. 88 and S. Mazzarino, *Fra Oriente e Occidente* 150 ff. and 313 ff., both of which reach very much the same conclusions. Mazzarino, basing himself on a very plausible interpretation of a neo-Babylonian document, concludes that his short reign must have been in 569–8 B.C. (Sidney Smith, discussing this inscription in his *Isaiah, Chapters XL–LV* 204, objects to the identification of *Puṭu-Yaman* with Cyrene on historical grounds, which, however, are not cogent. If, as is highly probable, Cyrene is meant, Mazzarino's argument from what remains of the royal (?) name becomes very attractive and is, I am informed, philologically possible. I have had the benefit of being able to discuss this inscription with Mr. P. Hulin and Professor H. T. Wade-Gery, and Professor Sidney Smith kindly allowed me to consult him on the transliteration of names. F. Chamoux, *Cyrène sous la monarchie des Battiades* 142–3 and H. Schaefer, *RheinMus* XCV (1952), 157 n. 80 and 158 n. 83 discuss Mazzarino's views, but their scepticism is not well founded.) Both H. R. W. Smith and Mazzarino think that the cup must have been painted during Arkesilas' reign because of the king's unfortunate end. I doubt whether this is a safe inference, and therefore do not regard the reign as more than the earliest possible date for the cup, without, however, wanting to leave more than a few years at the most between the king's death and the painting of the cup.

[10] See above p. 306. Yet it is not only the use of inscriptions which suggests this influence, but also the proportions of the figures and the manner of their drawing. Take Sliphomachos and his companion who holds the basket and compare them with figures by the Hunt Painter at almost any stage of his career. Many of their traits are to be found there, in the Hunt Painter, rather than in the earlier work of the Arkesilas Painter. Of course, despite this influence Sliphomachos could have been drawn by no one but the Arkesilas Painter!

[11] This is also the date Smith arrives at in his careful consideration of this tomb in *The Hearst Hydria* 251–2. One of his premises, however, is the date of the Arkesilas cup, which he fixes very close to 565 B.C.

[12] The *lydion* found in it has a squat foot modelled on that of early Attic eye-cups (Type A, *cf.* Beazley, *Development of Attic Black-Figure* 67) in contrast to earlier examples such as *Cl. Rh.* VIII 70, bottom l. (Mrs. Ure has very kindly shown me a photograph of the unpublished part of the tomb group.)

[13] Lane 137–9. I know the outside of the Taranto cup from an inadequate photograph only and cannot vouch for the aptness of the comparison. In any case Lane's list of differences in the outside decoration of these two cups is incomplete. Instead of the frieze of buds in the lowest zone, the Taranto cup has pomegranates.

A word on works in the manner of these painters. Those attached to the style of the Arkesilas Painter begin in his late period, the late seventies or early sixties, and the workshop goes on producing vigorously, after his death or retirement, until shortly after the mid-century. The general development of the style, debased though it is, is clear, and the chronology is not inconsistent with the evidence of the Sardis tomb in which no. 20 was found.[15] There is no evidence that this workshop carried on after the mid-forties of the century.

Works in the manner of the Naucratis Painter are few in number. They seem to start quite early in his career,[16] and they carry on well into the third quarter of the century. Dating these later vases (nos. 5–7) is difficult. They are in a conservative style, yet at the same time the interest in drapery folds by painters of this workshop may make their work look more advanced in relation to other Laconian vases than perhaps it really is. The latest cup (no. 7), however, in its motives reminds one strongly of works by the Andokides Painter and Psiax in Attica[17] and must therefore be dated in the twenties or perhaps even somewhat later. It was found at Samos in a context later than the late-Polycratean fill.[18]

Works in the manner of the Hunt Painter were produced in the fifties and forties of the century. The latest may go on into the thirties, but not far. Here, in contrast to the other two workshops, the imitators do not seem to have survived their master for long.

There remain the Heidelberg Chimaera cup and the Taranto cup with Cyrene and the lion, both of which I have set apart at the end of my lists. I am giving elsewhere my reasons for putting the Heidelberg cup at the end of the thirties or in the early twenties,[19] and I date the Taranto cup about 520 or very little later, contemporary with the latest Amasis Painter, his neck-amphora in Boston (*ÖJh* X, pll. 1–4; Pfuhl, *MuZ* III, figs. 218–19).[20] Their relation to the workshops of the earlier period is evident, but I cannot connect them more closely.

B. B. Shefton

---

[14] This does not disagree with the evidence, such as it is, of the tomb group of which the Rhodes cup is part; see Lane 180; Hopper, *BSA* XLIV (1949), 191.

[15] See Lane 151, but it can hardly be used for close dating. There were fifty or more vases in the tomb, not just the three Lane mentions. The trefoil-mouth olpe discussed by Lane is published in *Sardis* I 119, fig. 125, extreme r., and Richter, *Handbook of the Greek Coll.*, pl. 26 b. It is Attic of the first half of the century and is now New York 26.164.28 (*cf.* Beazley, *Hesperia* XIII (1944), 42 n. 8 and, with wrong inv. number, Richter, *Archaic Greek Art* 53, n. 199). For this tomb see also *AJA* XVIII (1914), 432 ff. None of its contents seems to be later than early in the second half of the century.

[16] Nos. 2–4, however, which are obviously contemporary with work of his own hand, may in fact be his.

[17] *Cf.* Pfuhl, *MuZ* III, figs. 313, 317, 318.

[18] See Homann-Wedeking, *Archaische Vasenornamentik* 13. I owe my knowledge of this cup to the kindness of Dr. Homann-Wedeking, who sent me photographs of it.

[19] See *Perachora* II, on no. 4093.

[20] See Beazley, *Development* 58.

OBITUARY

SIR JOHN MYRES: 1869–1954

John Linton Myres began his life-long association with Greece and the British School at Athens in 1891, when he visited the School's excavation at Megalopolis during an undergraduate visit to Greece. This visit was a turning-point in his career; after it his many-sided energies were devoted to the study of the Greek way of life, particularly during the early, formative period of Greek history. He returned to Athens in 1892 as Craven Fellow and a Student of the School; travelled with Evans in Crete, with Paton in the Islands and Caria, and more widely in Mediterranean lands, where he knew most of the regions to which ancient Greek sailors and settlers penetrated. He dug in Cyprus, and, later, took part in the School's excavation at Palaikastro, where the Minoan sanctuary at Petsofà was his especial responsibility.

After 1895 he spent most of his life in Oxford, until 1907 as Student of Christ Church and, after an interlude as Gladstone Professor of Greek at Liverpool, as the first Wykeham Professor of Ancient History and Fellow of New College. His lectures as Professor were sometimes difficult to tie down in time and place, for they drew widely on his experiences in many lands and seas and his enormous reading; his great gift was in the vivid actuality with which he brought the past to life, and the flashes of insight which illuminated it with some far-fetched but fruitful analogy. His friends and pupils of many generations were continually stimulated by his enthusiasm, the breadth of his learning and interests, and his brilliant flow of conversation, full of new ideas and telling phrase.

As an archaeologist, his powerful visual memory and his gift for seeing likenesses led to some brilliant results. Though his main written work was in the field of ancient history, he laid the foundation of a scientific study of Cypriot antiquities with his catalogues of the Cyprus Museum and the Cesnola Collection, and made important contributions to the development of prehellenic studies, with his work on Kamares pottery and the early fabrics of the Cyclades.

The First World War brought him work after his own heart as Commander, R.N.V.R., in command of a caique with a roving commission in the Greek Islands and on the Turkish coast, gathering information and raiding cattle from the Turkish mainland. This was a life full of Homeric incident which lost nothing in the telling; he recalled with zest how, when he took passage in the relative comfort of a destroyer to report to base, he received ' hard lying ' allowance denied him when on his caique or his shore excursions. He was awarded the O.B.E. and the Greek Order of George I for his services.

He was first elected to the Managing Committee of the School as long ago as 1895, and was elected an Honorary Student in 1896. In 1934 he became Chairman of the Managing Committee, in succession to George Macmillan, and remained Chairman until 1947, when he was elected President. During the thirties he was in Athens for a part of nearly every year, took an active interest in the management of the School property and all the other activities of the School; his wonderful visual memory enabled him in his study in Oxford to discuss the siting of trees in the School garden or the field boundaries of the School's property at Knossos. He travelled widely in Greece at this time, and the inhabitants of many parts of the mainland and islands have still warm memories of him. It was his pleasure sometimes to recount stirring events of his war service, or of his earlier travels in the nineties; and after one evening in an

Athens taverna when his younger hearers listened spellbound to these stories, he recalled that, like Odysseus, he had seen much and remembered more.

During the 1939–45 war he took on himself, with the departure of many younger men and women for war service, the greater part of the administration of the School, and rendered a particular service by editing the *Annual*. But increasing bodily infirmity began to make movement difficult, and for the last years of his life he was confined to his house in Oxford. One of his greatest pleasures now was to receive visits from young men just back from Greece and the Mediterranean, to hear the news from that part of the world, and to advise them in planning their travels. His mind was as active and scintillating as ever, and he was able in these years to complete Sir Arthur Evans' work on *Scripta Minoa*, to congratulate and encourage the younger men who were taking the steps which led to the reading of this script, and to publish *Herodotus: Father of History*. Herodotus was one of his earliest interests, and a historian for whom he had a fellow feeling. He was at work until the last, planning new books and producing a stream of articles and reviews. He was knighted in 1943.

Though he could on occasion be a bonny fighter in criticism or controversy, he was a kindly man, and many of us recall acts of kindness and words of encouragement at the outset of our careers. In 1939 he was presented with a volume of the *Annual* containing studies by his pupils and friends; I believe that he wrote to all the contributors with an individual word of thanks and acute comment on the subject matter of their contribution. Many of us will recall a word, spoken in his study in Oxford or during a journey in Greece, which has set an old problem in a new light; and his books contain enough of these flashes to preserve his vivid appreciation of Mediterranean life for generations who have not known him in the flesh.

T. J. D.

SUPPLEMENTARY BIBLIOGRAPHY

Since the publication of the list of Sir John Myres' works appended to his *Geographical History in Greek Lands* (Oxford, Clarendon Press, 1953), the following items are to be added:

1951

' The Purpose and the Formulae of the Minoan Tablets from Hagia Triada ', *Minos* I 26–30.

Reviews

V. Georgiev, *Inscriptions minoennes quasi-bilingues, JHS* LXXI 269.
R. Thurnwald, *Der Mensch geringer Naturbeherrschung, Man* LI 259.
H. Frankfort, *The Birth of Civilisation in the Near East, Man* LI 265.
Südseestudien : Gedenkschrift zur Erinnerung an Felix Speiser, Man LI 279.
J. A. Wilson, *The Burden of Egypt, Man* LI 287.
S. Davis, *Race Relations in Ancient Egypt, Greek, Egyptian, Hebrew, Roman, Man* LI 288.

1952

' The Pattern of the Odyssey ', *JHS* LXXII 1–19.
' Recent Ethnographical Studies in Bosnia: The Work of Milenko Filipovič ', *Man* LII 212.
' Concentric Circle Ornament on Vessels of Wood from the Taurus ', *Man* LII 262.

Reviews

C. G. Jung and C. Kerényi, *Introduction to a Science of Mythology : The Myth of the Divine Child and the Mysteries of Eleusis, Man* LII 27.
J. Ruesch and G. Bateson, *Communication : The Social Matrix of Psychiatry, Man* LII 56.
E. L. R. Meyerowitz, *The Sacred State of the Akan, Man* LII 82.
M. Leiris, *Race and Culture, Man* LII 106.
J. Comas, *Racial Myths, Man* LII 106.
H. R. Wilkinson, *Maps and Politics : A Review of the Ethnographic Cartography of Macedonia, Man* LII 115.
O. Neugebauer, *The Exact Sciences in Antiquity, Man* LII 214.
R. B. Onians, *The Origins of European Thought about the Body, the Mind, the Soul, the World, Time, and Fate, Man* LII 235.
A. Scharff and A. Moortgat, *Ägypten und Vorderasien im Altertum, CR* (N.S.) II 197–8.
E. Mireaux, *Les poèmes d'Homère* II, *Greece and Rome* XXI 1–9.

1953

HERODOTUS: FATHER OF HISTORY (Oxford, Clarendon Press).
' Persia, Greece and Israel ', *PEFQ* 1953, 8–22.
' Ancient Groceries ', *Greece and Rome* XXII 1–10.
' Cupola Tombs in the Aegean and in Iberia: A Criticism of a Recent Theory ', *Antiquity* XXVII 3–11.
Appendix to a note by Porphyrios Dikaios on ' An Inscribed Tablet from Enkomi, Cyprus ', *Antiquity* XXVII 105.

Obituary

'Bedřich Hrozný, 1879–1952', *Man* LIII 128.

Reviews

S. Chase, *Roads to Agreement: Successful Methods in the Science of Human Relations*, *Man* LIII 103.
C. S. Coon, *Caravan: The Story of the Middle East*, *Man* LIII 137.
R. Redfield, *The Primitive World and its Transformations*, *Man* LIII 181.
H. Rhotert, *Libysche Felsbilder*, *Man* LIII 192.
C. F. A. Schaeffer, *Enkomi-Alasia*, *Antiquity* XXVII 54–5.
G. R. Levy, *The Sword from the Rock*, *Antiquity* XXVII 248–9.
Corinth: Excavations of the American School at Athens, Vol. XII and Vol. XV, Pt. 2, *Antiquity* XXVII 249.
W. W. Tarn, *The Greeks in Bactria and India*, 2nd ed., *CR* (N.S.) III 125.

1954

'A Painted Graeco-Phoenician Vase from Ormidhia in Cyprus', *AJA* LVIII 39–44.
'The Battle of Lade, 494 B.C.', *Greece and Rome* (N.S.) I 50–5.
'The Structure of the *Iliad*, Illustrated by the Speeches', *JHS* LXXIV 122–41.
'An Early Ægean Sealstone with Linear Signs', *Man* LIV 75.

Forthcoming

'A Survey of Minoan Civilization' (with Sir John Forsdyke) in J. D. S. Pendlebury, *A Handbook to the Palace of Minos at Knossos*, ed. 2 (London, Parrish), pp. 13–23.
SCRIPTA MINOA III, by A. J. Evans, edited by J. L. MYRES (London, Society of Antiquaries).
'Asia Minor down to the Persian Domination', in *Historia Mundi* II (*ed.* Fritz Valjavec) (Berne, A. Francke S.A.).

I. GENERAL INDEX

Achaea, a topographical and historical study 72–92; and Athens 81 f.; alliance with Athens 82 f.; city governments 85; coins 89–90; communications 74–5; and Elis 91; general political character 92; geography and topography 74 ff.; kings of 72; mercenaries from 85; and migrations 73; and Mycenae 72–3; neutrality in Pel. War 83; and Oiniadai 82; and Persian invasion 80; political history 76 ff.; relation to Arcadians 73; and Sacred War (Phocis) 91; settlement of 72 ff.; and S. Italy 77–9; and Sparta 84–7; and trade 78–9; traders in 85; and Thebes 90–1; twelve divisions 73; vote in Pel. League 87; wealth of 85.
Achaean cities, early organisation 79 f.; *koinon*, character 87; League, in classical period 80 f.; League federal forces 89; League, federal treasury 89 f.; League, and foreign policy 84–5; League, and foreign powers 88; League, and garrisons 89; League, Hellenistic organ. 76–7; League, last stages 92; League, origins 80–1; League, 'states' rights' 87 ff.
Acrophonic numerals 1–8.
Acropolis (Athens) topography 20.
Actian era, in the Peloponnese 52 ff.
adze (?), bronze, from Mycenae 293.
Aegina, and Athens 21 ff.; early inscribed plaque from 184–6.
Aegosthena 104, 110, 112, 113, 116, 117.
Aeneas Tacticus, on Chios 124.
Aigai (Achaea) 73 ff.; coins 75.
Aigeira (Achaea) 73 ff.
Aigeiroi (in Megarid), location 119–20.
Aigeiros (Aigeiroussa), *see* Aigeiroi.
Aigion (Achaea) 73 ff.
Alabaster vase (? Egyptian), Mycenae 237.
Alcibiades, and Patrai 84.
Alpanos (Caria) 14–15.
alphabetic numerals 1–8.
Ambeloclados (Nicolaos Scouras) 58.
amber, in Crete 216, 217; inlay, Crete 216.
Ameinocles, Cor. shipwright 93.
amphora-stamp, in Chios (Kofinà) 155–6.
Anderson, J. K., *A Topographical and Historical Study of Achaea* 72–92.
Androgeos, murder at Oinoe 121.
Androtion (of Athens) 34; date of activities 43 ff.; Demosthenes' speech against, date 43 ff., 47; and temple treasures 39 ff.
Anthedon, bronze founder's hoard from 296.
Antonine Itinerary, and Megarid roads 115.
Aphrodisias, water supply 9–10.
Archias, founder of Syracuse 93.
architectural models, at Mycenae? 241.
Argive (?) pottery 99–101; at Perachora 99.
Argos, Heraeum, plaque or box frs. 199.
Aristonautai (Pellene) 74.
Aristotle, *Megarian Constitution* 93, 95, 97.
Arkesilas II, of Cyrene, dating of reign 309 n. 9.
Arkesilas Painter (Laconian), and manner of 300–3.
Artemis Brauronia (inventory) 3.
Asine, L.H. pottery from 290.
Askos, Protogeometric 260.
assembly, federal, of Achaean League 77.
Athena, ancient olive wood statue 20.
Athenian Treasury, Delphi, roof construction 202–14.
Athens, and Achaea 81 f.; Acropolis, plaques from 195–7; and Aegina 21; Agora, plaques from 197–8; garrison in Achaea 82–3.
Attic b.f. and r.f. pottery, Chios 140–1.
Attica, and byepass route Boeotia-Isthmus 114; Eleusis, plaques from Demeter sanctuary 198; Menidi, plaques from tomb *dromos* 198; Sunium, plaques from Athena temple 198.
axe, winged, mould for, Mycenae 297–8.

Bacchiads (Corinth) 93.
beads, amber 219; crystal, biconical 223; faience 223; glass 219.
black-glaze pottery (Attic and non-Attic), Chios 145, 147, 148, 151, 159.
Boardman, J., *Painted Votive Plaques and an Early Inscription from Aegina* 183–201; (and R. W. Hutchinson) *The Khaniale Tekke Tombs* 215–28; see also Chios, *Excavation on the Kofinà Ridge.*
boar's tusk helmet, in ivory 236–7; as vase pattern 237.
boxes, clay, as offerings 194.
Brasidas, and Megarid 112–13.
Brontōn (Zeus) 13 ff.
bronze, fibula, Crete 215–16; -founder, hoard of, from Mycenae 292 ff.; pins, Crete 215–16; pin, Mycenae 263
Bura (Achaea) 73 ff.

Callias decrees 2.
Caulonia, foundation 78.
ceiling coffers (Athenian Treasury, Delphi) 206.
Chalkotheke (Athens) 3, 48.
chamber tomb (Tekke), Crete 215 ff., 223–4.
Chios, ancient city site 123–8; city and environs, various finds 125–8; 'Naucratite' pottery from (A. Iakobos) 124.
Chios, Excavation on the Kofinà Ridge, by J. K. Anderson (with M. S. F. Hood and J. Boardman) 123–82.
Chios, Kofinà ridge excavation 128–33 (general); architectural fragments 144; coin finds 159, 160, 161, 162; dating of 133–4; gold from 161; graves at 159–64; loom weights from 171–2; *pottery:* amphorae (Chian) 139, 141, 150, 155, general on shapes 168–70; foreign amphorae 155, 170; black glaze (Attic?) 145; black glaze (non-Attic?) 145; Attic black-figure 140–1; Attic red-figure 140–1; Corinthian 135; Fikellura 140; fine ware 134, 140; grey ware 148, 151; characteristics and affinities 166–7; half-glazed ware, characteristics and shapes 145–6, 148–9, 152, 165, 167–8; Ionian black-figure 140; kraters with stamped decoration 157; lagynoi 150, 156; lamps 137–8, 143, 146, 149, 155, 165; local slipped ware 136–7, 142–3; Megarian bowls 165; red glaze, Hellenistic and Roman 164–5; relief pithoi 140; Rhodian 135; Samian(?) 135;

'stoneware' basins 137, 139, 143, 157; unglazed 145–6, 148–9, 152, 165, 167–8; 'West Slope' ware 149, 153–4, 168; white-decorated ware 149, 154; white-slipped ware (descendant of 'Naucratite') 146, 149, 152; characteristics 168.
chisels, bronze, Mycenae 293.
cist burials at Mycenae, Geometric 260; Protogeometric 259; L.H. IIIC 258–9.
cisterns, mediaeval in Megarid 111, 115.
cloison inlay, Crete 217, 218.
columns, model, various types in ivory (Mycenae) 241.
Corinth, encroachment on Megarid 97; isthmus trade 98; relations with Megara 93 ff.
Corinthian pottery, Kofinà (Chios) 135, 140; Perachora 99 ff.
Cormack, J. M. R., *Epigraphic Evidence for the Water-Supply of Aphrodisias* 9–10.
counters, cut from pottery 166.
Cretan Geometric pottery 220 ff.; jewellery (seventh century) 216 ff.; Orientalizing pottery 223.
Crete, Protogeometric pottery (Tekke) 222; imitations of Cypriote pottery 216; imitation of P.C. skyphos 222.
Croton, foundation 78.
crowns, gold 1–6 *passim*, 45; melting by Androtion 44 ff.
crystal, beads 219, 220; inlay, in jewellery, Crete 216 ff.
culverins 59 ff.
currency (pre-coinage bars and dumps), Crete 217, 219.
Cycladic pottery, imports into Crete 222.
Cypriote pottery, imitations in Crete (geometric) 222.

Dagger, fragment of bronze, Mycenae 292.
Dedalic heads, in Cretan pendant 217.
Delos, plaque from area of Apollo temple 199.
Delphi, Roof of the Athenian Treasury, construction 202–14; Temple of Apollo and construction of Athenian Treasury 212.
Demosthenes, speech against Androtion, date 43–4.
Desborough, V., *Four Tombs* (Mycenae 1953) 258–66.
Donussa (Achaea) 80.
Dorians, in Megarid 93 ff.
Dorylaion (Eskişehir) 11–16.
double axe, bronze, Mycenae 293.
drachmai, abbrev. omitted 7.
Drakon of Pellene 86.
Dunbabin, T. J., *Obituary* of Sir John Myres, and *Supplementary Bibliography* 311–14.
Dyme (Achaea) 73 ff.

Earthquake, at Helike (Achaea) 87.
electrum jewellery, Crete 216.
Eleusis, plaques from Demeter sanctuary 198.
Eleutherae (Gyphtokastro) 104; location 120 ff.
Emborio (near Pyrgi), Chios 123.
Emporion, harbour area of Chios city 124.
Enkidu and Gilgamish 218.
Epigraphic Evidence for the Water-Supply of Aphrodisias, J. M. R. Cormack 9–10.
epikranitis, moulding 202 ff.
epistates of *proedroi* 31 ff.
era, of Thessaly 51 ff.
Erythrae (Kriekoúki) in Boeotia 103 ff.
Eskişehir (Dorylaion) 11–16.
Euboulos, reforms 43.
Euphranor (Zeus) 12.
Euphron of Sicyon 91.
Euthymides, plaque related to 201.

Faience, beads 223; polychrome at Mycenae 237; vases 216.
federal forces (Achaea) 89; treasury (Achaea) 89 f.
fibulae (Blinkenberg T. III 10) 223; bronze, Crete 216.
Fikellura pottery, in Chios (Kofinà) 140.
fiscus, provincial (Roman) 55 f.
fortification wall, Middle Helladic 244–7.
funnels, Mycenaean 239.
Fustel de Coulanges, excav. in Chios 124.

'Gallery', in Mycenae fortifications 254 ff.
garrisons, in Athenian empire 24–5.
Geometric cist burial, Mycenae 260; house model, Crete 220 f.; (Late) plaque from Aegina 184–6; pottery, Crete (Tekke) 220, 222–3; pottery, Mycenae 260 ff.
Gerania, Mt. 103–22 *passim;* road through 105–7.
Gilgamish, on Cretan (?) gold fillet 217–18.
Glaukytes (Megakles), *kalos* plaque 201.
gold, from Chios (Kofinà) 161; bead (Crete, Tekke) 220; jewellery, dumps and bars, Crete 216 ff. (dating 223); relief fillet, Crete 217–18.
Gorgopis, of lake in *Agamemnon* 118.
Gossage, A. J., *The Date of* IG *V (2) 516 (SIG*^{3} *300)* 51–6.
Greek, Italianate 58–9.
Günece Köy (nr. Yenişehir) 16.
gunner, Greek manual for 57 ff.
Gyphtokastro (Eleutherae) 104; not Panactum 121.

Hadrian, in the Peloponnese 53.
Hadrianic era in Peloponnese 53.
Halieis, and Athens 23–4.
hammer, bronze, Mycenae 294–5.
Hammond, N. G. L., *The Heraeum at Perachora and Corinthian Encroachment* 93–102; *The Main Road from Boeotia to the Peloponnese through the Northern Megarid* 103–22.
hand-made pottery, Mycenae (geom. per.) 264.
Helike (Achaea) 72 ff.; earthquake at 87.
Helladic, *Early:* pottery at Mycenae 246, 250; *Middle:* fortification wall 244–7, 248 ff.; graves 232; pottery from Mycenae 232, 252; Minyan and Matt-painted 246, 247, 248, 251; from Cyclopean Terrace Building 274; *Late:* pottery 232, 239, 248, 254, 268, 271–3, 274–83; pottery from Mycenae, characteristics, interrelation of patterns 286; metallic influence 285; smoothed and polished finish 284; classification by designs 274–7 (Cyclopean Terrace Building); comparison of deposits 289 ff.; coarse 283; monochrome 280; shapes 277–80; stripe decoration 278; unpainted 281 ff.; pottery from Taranto (Scoglio del Tonno) 298; terracotta figurines 284; Wall, Mycenae 250, 251.
Hellenistic pottery, Mycenae 251.
helmet, boar's tusk, in ivory 236–7.
Hera, Acraea cult (Perachora) 98 ff.; (Megarian colonies) 96, 98; Limenia (Perachora), and Corinthians 98.
Heraeis, origins 99.
Heraeum (Perachora), Argive and Corinthian pottery 99 ff.; foundation 93 ff.; importance to Corinth 98.
Hodge, A. T., *A Roof at Delphi* 202–14.

Homer, head from Chios (?) 158.
Hood, M. S. F. See Chios, *Excavation on the Kofinà Ridge*.
‘horns of consecration’ (Tekke, Crete) 228.
house model (Cretan geometric) 220 ff.; dating 223.
houses, undefended, at Mycenae 242.
Hunt Painter (Laconian), and manner of 306–8.
Hutchinson, R. W. (and J. Boardman), *The Khaniale Tekke Tombs* 215–28.
Hysiae 121.

INGOT, bronze (Myc.), frs. of, Mycenae 295–6.
inlaid stone vases (Minoan-Myc.), dating 238.
inlay, crystal, etc., in stone vases 237; ivory (Mycenae) 236.
inscription, early from Aegina 184–5.
Inscriptions from Eskişehir and District, I. W. Macpherson 11–16.
inventories (temple) 1–8 *passim*.
Ionian black-figure, Chios (Kofinà) 140.
Ionians, and Helike (Achaea) 87.
iota mutum, absence of in dative 10.
iron, pins and dagger, Mycenae 260; sword (Halos broad-bladed type) 216; sword (Naue Type 2) 215.
Isthmus of Corinth, importance for communications 115; routes to and from Boeotia 103; routes to and from Central Megarid 105.
Italian words, in Greek 58.
ivory (Tekke, Crete) 223; blocks, Mycenae 240; carvings, Mycenae 239–41; crescent, Crete 217; ‘dominoes’, Mycenae 240; sphinx plaque 238.

JEWELLERY, gold (Tekke), dating 223.
jurors tickets (bronze) 1.

KALLYNTERIA 20.
Katavothres in Megarid 108, 118.
kernos, fragments, Chios 146.
Keryneia 73 ff.
Khaniale Tekke tombs, Crete 215–28.
Kofinà ridge. See Chios.
Koinon of Achaeans, character 87.
kouskouras relief, Crete 220.
Krathis (river) 75.
Kriekoúki (anc. Erythrae in Boeotia) 103 ff.
kriophoros, gold (relief) 220.
Kynaitha (Arcadia) 75.

LACONIAN krater, handle from Pagae 117; vase-painters 299–310; vase painting, chronology 308–10.
lagynoi, Chios 150, 156.
Lamis, founder of Megara Hyblaea 93.
Larisa (Aeolis), plaque fragment 199.
League, Achaean 76 ff.
Leontion (Achaea) 73.
Lesbian (?) amphorae, Chios (Kofinà) 139–40, 142.
letter-cutting, Athens 22–3.
Letter-Labels in Greek Inscriptions, by M. N. Tod 1–8.
letter-labels, use of 4 ff.
Lewis, David M., *Notes on Attic Inscriptions* 17–50.
Linear B inscrs. on seals (Mycenae) 239; tablet (Mycenae) 237.
lion plaques in ivory (Mycenae) 236.
literacy in Mycenaean and post-Mycenaean periods 243.
loom weights, Chios 171–2.
lotus, and spiral pattern, on ivory 239.
lunate forms, in jewellery and their significance 219.
Lykosoura 51–6.

MACPHERSON, I. W., *Inscr. fr. Eskişehir and District* 11–16.
manual, Greek gunner’s 57 ff.; shipwright’s 57.
marble tiles, and roofing of Athenian Treasury, Delphi 212–13.
mason’s marks, Piraeus theatre 2; House of Hermes, Delos 2.
Matt-Painted pottery (M.H.) from Mycenae 246, 274.
mediaeval fortifications and cisterns in Megarid 111, 115.
Megakles (Glaukytes), *kalos* plaque 201.
Megara, cult connections with Argos 96; early chronology 101–2; early history 95; foundation date 96; *komai* 95–96; relations with Corinth 93 ff.; Sicilian colonisation 101; Hyblaea 93–102 *passim;* Hyblaea, foundation 93.
Megarian bowls 165; (? or Argive) pottery at Perachora 99–101.
Megarid, campaigns in (northern) 111 ff.; Spartan campaign of 457 B.C. 114; campaign of 446 B.C. 113; campaigns of 378–76 B.C. 113–14; chamber tombs 117; fortification towers in 108 ff.; frontier with Attica 122; and Ionians (early) 96; mediaeval fortifications in 111, 115; military use of main road 111 ff.; and north–south communications 115; Roman roads in 115; topography of northern 115 ff.
Melian (?) plaque from Delos 199.
Menidi, Attica, plaques from tomb *dromos* 198.
mercenaries, from Achaea 85
Minoan (L.M. III) sarcophagus frs. in Tekke tomb (Crete) 222; (Middle) sherds in Tekke tomb (Crete) 222.
Minyan pottery 274; (M.H.) from Mycenae 246, 251.
Mitikas, Mt. (Cynosoura?) 117.
monochrome, pithoi (Cret. orient.) 223; (L.H.) ware 280.
Morgan, G., *A Greek Gunner’s Manual* 57–71.
mulberry pendant (gold), Crete 216.
Muses monument (of Thespiae) 2.
Mycenae, and Achaea 72–3; architectural models (?) 241; bronze-founder’s hoard 292 ff.; burials (post-Mycenaean) 265–6; Cyclopean Terrace Building: assoc. pottery 267–91; dating 291; human skeletal material 273, 288; drains 255–7; excavations (1953) 229–98; grave (L.H. IIIC) 232.
Mycenae, The Grave Circle: 244–7; date of 246–7; Hellenistic cistern and graves 232; Hellenistic wall 252; House of the Oil Merchant: 233; winged-axe mould from 297–8; House of Shields: 233, 235–8, 241–3; burial in 259; Houses of Sphinxes 233, 238–41, 241–3; houses outside defences 242; ivory blocks 240; ivory carvings 235–7, 239–41; ivory ‘dominoes’ 240; Linear B inscrs. on seals 239; Linear B Script in houses 243; Linear B tablet 237; ‘North Megaron’, excavation 267 ff.; North Wall, gallery in 254–7; pottery: Middle Helladic 232; Late Helladic 232, 235, 237, 246, 258; Geometric 235; Hellenistic 235; Prehistoric cemetery: 258; M.H. graves 232–3; seal impressions 239; stone vases 235; terracotta figurines (L.H.) 284; tombs (P.G. and Geom.) 258–66; tholos tombs, location of 233; wall (? M.H.) 244–7; winged-axe mould 297–8.

Myres, Sir John. *Obituary*, and *Supplementary Bibliography* 311–14.

naiskos plaques 192.
Naucratis Painter (Laconian), and manner of 303–6.
' Naucratite ' from Chios (A. Iakobos) 124.
Negrobattoldo (alchemist) 59.
Nessos Painter, plaque 201.
Notes on Attic Inscriptions, by David M. Lewis 17–50.
numerals (Greek), acrophonic 1 ff.; alphabetic 1 ff., 8.

OCTAVIAN, and the Greek cities 52.
octopus, Minoan survival in later Crete 222.
Oenoe, location (at Víllia, Attica) 112, 120 ff.
Ogyges, of Achaea 72.
Oiniadai, and Achaeans 82.
Olenos (Achaea) 73 ff.
oligarchy, in Achaea 84–5.
Opisthodomos (Athens) burning of 47 f.; reorganisation of treasures 48.
orientalising pottery, Crete 216, 220 ff.
Orsippus (of Megara) 95, 97.
Orthagoras of Sicyon, and Pellene 80.
ostrakinda (game) 166.
ostrich egg fragments, Crete 216.
ovoid pithoi, Cretan 221 ff.

PAGAE (Megarid) 105; ancient graves at 117; port and settlement 116–17; pottery from graves 117; walls 110.
Painted Votive Plaques and an Early Inscription from Aegina, by J. Boardman 183–201.
painting (major), influence and problem of existence (7th cent. B.C.) 189–90; (vase), and influence on plaques 193–4.
Palaikastro, Chios, excavations 124.
Panathenaic crowns 45.
panel painting, on wood 190.
' panel ' style, in L.H. III pottery, date 247.
Patrai (Achaea) 73 ff.; and Alcibiades 84.
Patreus, of Achaea 72.
patterns, on carved ivory (Mycenae) 236.
Pellene (Achaea) 73 ff., 85–6; and Sparta 83.
Peloponnesian League, vote of Achaea 87.
pendant, early gold, Crete 217.
Perachora, Heraeum, foundation 93 ff.
perfume bottles (Chios) 159–63 *passim*.
perrier-cannon 59 ff.
Peutinger Table, and Megarid roads 115.
Pharai (Achaea) 73 ff.
Philippos (of Achaean Pellene?) 73.
Philo, Arsenal of 209.
Phlius, war with Thebes 91.
Phrikodemos, of Oiantheia 88.
' Pie Ware ' (Mycenaean) 259, 261, 264.
pinakion (*pinax*) 186 f.
pins, of bronze, Crete 215–16; iron, Protogeometric 260, 261, 262.
Piraeis, origins 99.
Pirgos (Megarid) 111.
pithos burial (Geometric), Mycenae 265.
Pitsa (nr. Sicyon), wooden plaques from 188.
plaques (painted), arrangement and placing in sanctuaries 193; bespoke and exported 194; decoration 199; distinction of clay and wood 189; double-faced 192; influence of vase painting 193–4; material and use 187–91; piercing for suspension 192; relief 191; shape 191; single-faced (non-funerary?) 200.
plaster flooring, Mycenae 272.
plastic snake, on plaque 198.
Plataea (campaigns) 112; road to Eleutherae 121.
Platanos (Megarid), ancient settlement at 116; cist-graves at 107.
Plynteria 20.
polychrome pithoi, Cretan 221 ff.
portolano 57.
Poseidon Helikonios 72.
potnia theron, electrum, Crete 216.
Praxiergidai 17 ff.
Preugenes, of Achaea 72.
Proedroi as presidents (Boule and Assembly) 31 f.
Protogeometric cist burial, Mycenae 259; pottery, from Crete (Tekke) 222; from Mycenae 259.
prytaneis, last presidency of (Athens) 31–2.
Psátha (Megarid) 117.
purlins, in Athenian Treasury, Delphi 209.

QUATREFOIL pendant (gold), Crete 218.

RAVENNA Geographer, and Megarid roads 115.
relief pithoi 140 (Rhodian or local) 144; plaques 191.
Rhodian pottery, from Kofinà (Chios) 135.
Rhypes (Achaea) 73 ff.
ridge beam, supports in Athenian Treasury, Delphi 209.
road, ' of the Towers ' (Megarid) 112.
roof, construction in Athenian Treasury, Delphi 202–14; tiles, in Chios, shapes 170–1.
Rowe, K. R., *A Possible Middle Helladic Fortification Wall* 248–53; (with A. J. B. Wace) *The ' Gallery ' in the North Wall* (Mycenae 1953) 254–7.

SACRED treasures, preservation in temples 3.
Samian (?) pottery, Kofinà, Chios 135.
Samos 29–31.
Sarapeion, at Chios 126.
scarabs, Egyptianising (Cretan or Cypriote) 218–19.
Scoglio del Tonno (Taranto), Mycenaean pottery and winged-axe from 298.
Scouras, Nicolaos 58.
seal impressions, Mycenae 239.
serpentine, vases of, Mycenae 237.
Shefton, B. B., *Three Laconian Vase-Painters* 299–310.
shields, figure-of-eight, in ivory 236.
shipwright's manual 57.
sickles (bronze), Mycenae 293.
silver (jewellery), Crete 217, 218, 219.
slip, red, in Crete 222.
Smyrna (Bayrakli), plaque frs. 199.
Sparta, independent communities 96.
sphinx plaques, ivory 239–41.
spindle whorls 258–9.
stamp, on loom weights 171–2.
stone vases, Mycenae 237; inlaid, dating 238; process of manufacture 237.
Stradiots (Venetian mercenaries) 58.
Stubbings, F. H. (with A. J. B. Wace) *The Grave Circle* (Mycenae 1953) 244–7; *A Bronze Founder's Hoard* (Mycenae 1953) 292–6; *A Winged-Axe Mould* (Mycenae 1953) 297–8.
Sunium, plaques from Athena temple 198.

sword, bronze, Mycenae 292; iron (Halos broad-bladed type) 216; iron (Naue Type 2) Crete 214.
Sybaris, foundation 78.
symproedroi, earliest ref. to 49.
Syro-Phoenician faience (Mycenae) 237; style in Cretan gold band 218.

Talent, as weight 7.
tallies (earthenware) 1.
Taranto, Scoglio del Tonno, Mycenaean pottery and winged-axe from 298.
Tekke (Khaniale)-tombs, Crete 215–28.
Tell-el-Amarna, L.H. pottery from 290.
temple models, Perachora 100.
temple treasures, and Androtion 39.
terracottas, in Chios (Kofinà) 158; figurines (L.H.), Mycenae 284.
Terramara (Italy) and Mycenaean Greece 298.
Themison of Eretria 91.
Theozotides (orator) 34–5.
Thermon metopes 190.
Thessalian League 51.
tholos tombs, location at Mycenae 233; at Tekke, Crete 216.
Thrace, in Tribute Lists 26–7.
threshold, wooden, at Mycenae 239.
Thucydides, colonisation chronology 93.
ticket plaques 188, 197, 198, 199.
tile burials, Chios 159 ff.
tiles, size and fastening in Athenian Treasury, Delphi 211.
timbering, of roof of Athenian Treasury, Delphi 202 ff.
Timeles, river (Caria) 9.
Tisamenos (Achaean leader) 72, 73.
Tod, M. N., *Letter Labels in Greek Inscriptions* 1–8.
Tolmides 81–2.
Tomba dei Leoni Dipinti, Cerveteri 212.
towers, as Megarid road defences 108 ff.
traditiones (Eleusis) 2–3.
treasure administration (Athens) 39 ff.
Tripodiscus, as ancient centre 116.
tripods (?), fragments (Tekke tombs) 223.
Tritaia (Achaea) 73 ff.
tweezers, bronze, Mycenae 294.

Vathikhória (Megarid), ancient and mediaeval fortifications 108–11; ancient lake at 107–8, 118.
village communities, and city state 96.
Villehardouin, William, in Megarid (A.D. 1258) 114–15.
votive plaques 183–201; shields, Cretan, with plastic bosses 222.
Vourvatsi (Attica), L.H. pottery from 290.

Wace, A. J. B. (with V. Desborough, K. R. Rowe, F. H. Stubbings and E. B. Wace), *Excavations at Mycenae (1953)* 229–98; (with F. H. Stubbings) *The Grave Circle* 244–7; (with K. R. Rowe) *The 'Gallery' in the North Wall* 254–7.
Wace, E. B., *The Cyclopean Terrace Building and the Deposit of Pottery beneath It* (Mycenae (1953)) 267–91.
warrior plaque fragment from Aegina 184–6.
water-supply of Aphrodisias 9–10.
'West Slope' Ware, Chios (Kofinà) 149, 153–4, 168.
winged-axe mould, from Mycenae 297–8.
wood, in panel painting 190.
wooden plaques 188–9.
writing in late Bronze Age 243.

Zacynthus, and Achaea 77; influence of Italian on Greek of 58.
Zeus Brontōn 13 ff.
Zeus Euphranor 12.
Zeuxis 187.

II. INDEX OF GREEK WORDS

ἀνεξοδίαστος 16.

γοργῶπις 118.

ἑκατοστύς 95.
ἐλειοδίακτος 9.

Μεγαρέων δάκρυα 93 ff.

μνῆς (= μνήμης) 16.

ὁ Διὸς Κόρινθος 93 ff.
Ὅσιος καὶ Δίκαιος 12
ὀστοθήκη 16.

πολυθενία 15.

τηλεσφορία 15.
τετραπρόσωπος 13.

φίσκος 55.
φυλακή 24–5.

III. INDEX OF CLASSICAL AUTHORS

Aeneas Tacticus XXXI 15 f.: 186–7.
Aeschylus, *Agamemnon* 302: 118–19.
Aristophanes, Schol., *Ranae* 442: 97.
Aristotle, *Politics* 1252b28: 96.
Chronicle of the Morea (*ed.* J. Schmitt) 3259–69: 114–15.
Demosthenes XXII 72: 47; XXIV 71: 32; XXIV 180: 47.
Diodorus Siculus IV 60, 5: 121.
Herodotus V 74: 121.
Homer, *Iliad* II 573–5: 72.
Isocrates, *de permut.* 310 b: 187.
Lycophron, *Alex.* 922: 78.
Pausanias I 38, 8: 121; I 44, 4: 116; III 16, 9–10: 96; V 4, 3: 73; VI 8, 5: 73; IX 2, 1–2: 121.
Pindar, Schol., *Nem.* VII 155: 97.
Plutarch, *Greek Questions* 17, 18, 59: 93 ff., 119–20.
Polybius IV 17–21: 75; V 94: 76.
Strabo 392: 96; 393: 96.
Suidas, *s.v.* 'Αἰγείρου θεά': 120; *s.v.* 'Διὸς Κόρινθος': 97.
Thucydides I 10: 96; I 67, 2: 22; II 66, 1: 77–8; III 24, 1: 121; IV 68, 4–72: 112 ff.; VIII 21: 29.
Thucydides, Schol., I 6: 97.
Xenophon, *HG* V 4, 14: 121.

IV. MUSEUM INDEX

Note: See also B. B. Shefton, *Three Laconian Vase Painters* 299 ff., for Museum list of Laconian pottery.

Athens: Acropolis 286 (plaque), 196; 287 (plaque), 196; 1037 (plaque), 201.
Athens: Agora, P 1125 *bis* (plaque), 201; P 8955 (plaque), 201; P 14688 (plaque), 200; T 175 (plaque), 197; T 184 (plaque), 198; T 673 (plaque), 197; T 1499 (plaque), 198; T 2319 (plaque), 198.
Athens: North Slope: A-P 1085 (plaque), 200; A-P 1113 (plaque), 200; A-P 1664 (plaque), 196–7; A-P 1682 (plaque), 196; A-P 1939 (plaque), 196; A-P 2372 (plaque), 197; A-P 2497 (plaque), 196; A-P 2524 (plaque), 196–7.
Athens NM 3588 (plaque), 198; NM 17468 (plaque), 200.
Delos B 1401 (plaque), 199.
New York, Metr. Mus. 35.11.15 (plaque), 200.

V. EPIGRAPHICAL INDEX

Agora I 4689: 37.
ATL List 9: 25 ff.
BCH XIV (1890), nos. 7, 8 & 9: 9.
CIG 2782: 9.
EM 6629: 17; 12923: 37.
Hesperia XIII 254–7, no. 11: 5.
Inscr. Délos 290–498: 6; 1400–79: 7.
SEG X 80: 23–4; 108: 50.
SIG^{3} 800: 51–6.
IG I^{2} 18: 21 ff.; 55: 29; 80: 17; 101: 29–31; 199: 26; 232–90, 292 *b*: 2 ff.; 310: 2; 874–5: 1; 876: 1.
IG II^{2} 3: 33; 5: 34–5; 9: 35; 10: 35; 17: 33; 23: 49; 31: 33; 36: 33; 41: 33; 42: 33; 50: 32; 52: 49; 61–2: 34; 66: 50; 70: 34; 76: 33; 105: 37; 120: 3, 43; 135: 49; 145: 36–7; 152: 34, 38; 156: 38-9; 157: 34; 158: 33; 190: 38; 205: 50; 212: 49; 216–17: 39 ff., 47; 221: 50; 261: 39; 279: 50; 306: 50; 361: 50; 452: 49; 523: 37; 1382–3: 2; 1415: 48; 1424, 1424*a*: 46; 1425: 44, 46; 1428, 1429: 46; 1436: 45; 1438: 45 ff.; 1443: 4; 1445–54: 4; 1496: 4; 1611: 44; 1612: 44; 1622: 44; 1633–53: 5; 1695: 5; 1928: 37; 1929: 37; 1932: 37; 7351: 33.
IG IV 39: 3.
IG IV^{1} 853: 56.
IG IV^{2} 109: 1.
IG V (2) 51: 53; 323: 1; 516: 51–6; 541, 542: 54.
IG VII 303: 3.
IG IX (1) 334: 1 n. 2.
IG XI 135–289: 6.
IG XII (8) 51: 3.
IG XIV 1284–6: 2.

VI. INDEX OF EPIGRAPHICAL PROPER NAMES

(a) Ethnics

[Βερ]γ[αῖοι 28.

(b) Personal

᾽Αμειψίας 33.
᾽Αμία 13.
᾽Αμμία 14.
Anteros, Lucius Licinius 56.
᾽Απημαντοκλῆς 33.
᾽Απολλώνιος ᾽Απολλωνίου 13.
᾽Απολλώνιος ῾Ηνιόχου 14.
Argolikos, C. Julius 54.
᾽Α]ρισταῖο[ς] Φαλ[ηρεύς 50.
᾽Αρτέμων ᾽Απολλωνίδου 16.
᾽Αρχεπτόλεμος Λυσικλέους Κεφαλῆθεν 38.
῎Αταλος Αὐρ. 16.

Βοῦλις Θοραιεύς 49.

Damyllos (s. of Zeuxias) 54–5.

᾽Επιστ[έμον] 185.
Eurykles, C. Julius 54.
Εὔψυχος ᾽Αττάλου, 14.

Κηφ[ίσιος] 39.
Κλωδία Σοφοκλέως (*sic*) 13.
Kratinos, C. Julius 54.

Lacon, C. Julius 54.
Λυσιάδης 35–36.

Μόσχος Κυδαθηναιεύς 37.

Nikasippos (s. of Philippos) 51 ff.

Pantimia, Julia 54.

Spartiatikos, C. Julius 54.

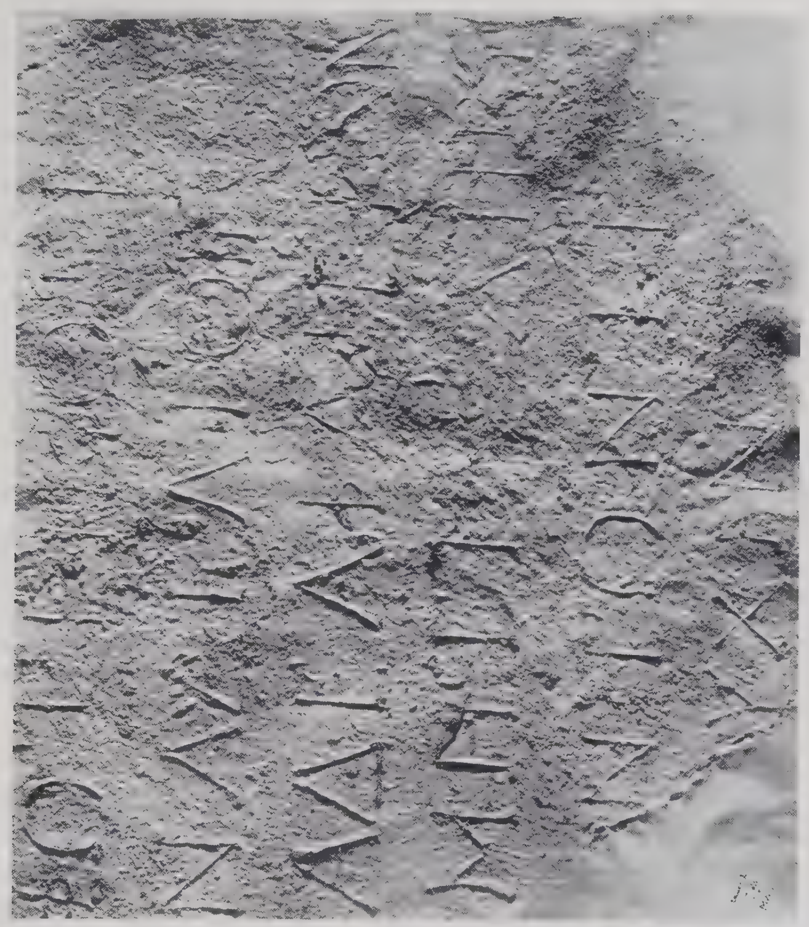
Τερτία 13.
Timasistrata (d. of Onasikrates) 51 ff.
Τρύφων, Αὔρη. (?) 15.

Φρ[ύνων] 38.
Φωτεινός 15.

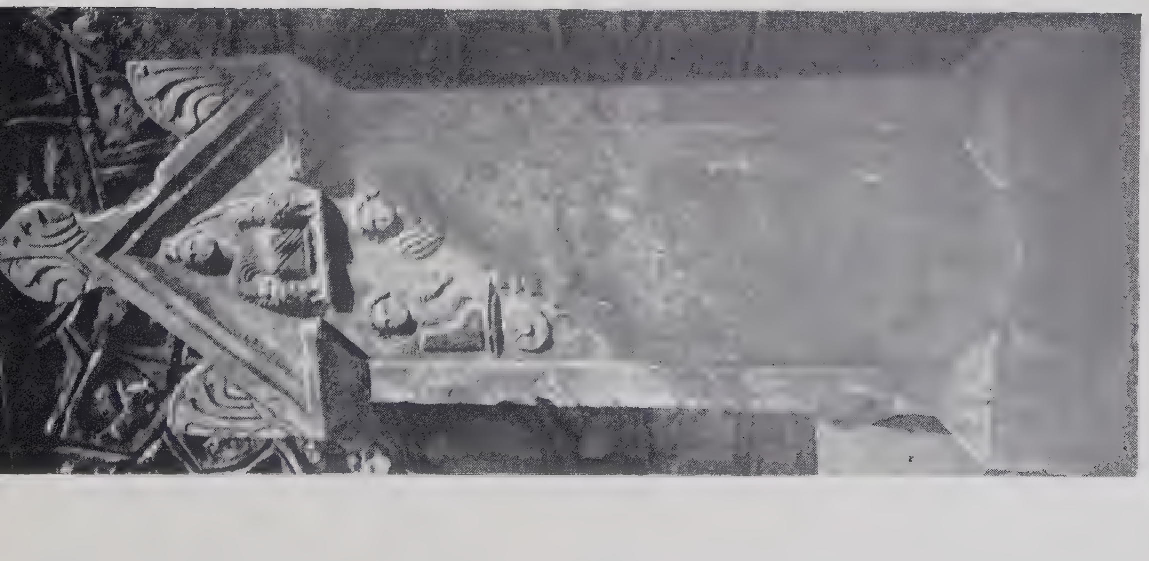
Χελείδων 16.
Χρῆστος, Αὐρ. 12

Printed in Great Britain by Richard Clay and Company, Ltd.,
Bungay, Suffolk.

BIBL. LONDIN. UNIV.



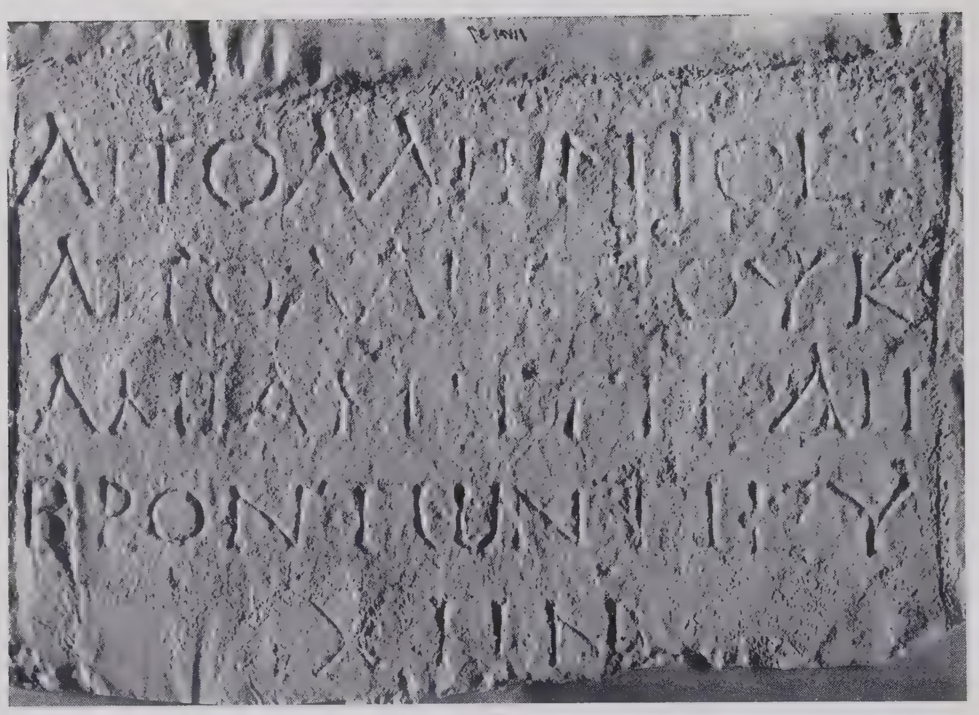
(b)



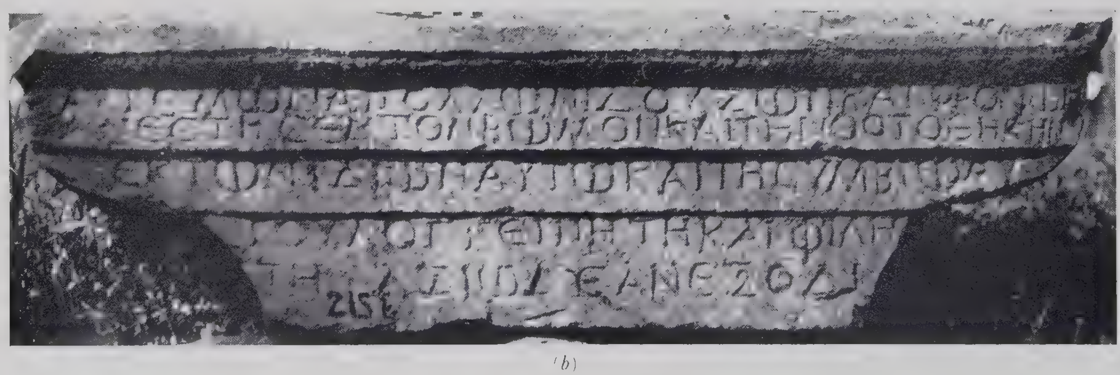
(a)

INSCRIPTIONS FROM ESKIŞEHIR AND DISTRICT.

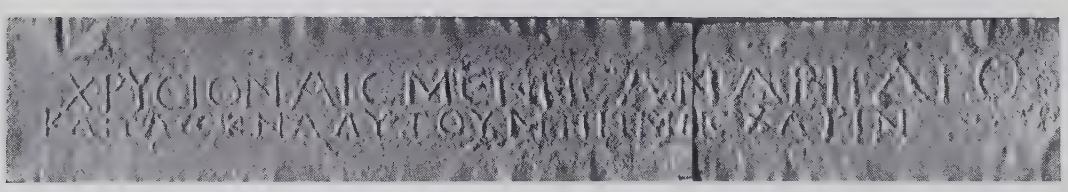
(a) Inscription 2, Mentioning *Hosios kai Dikaios*. (b) Inscription 10, from Alpanos.



(*a*)



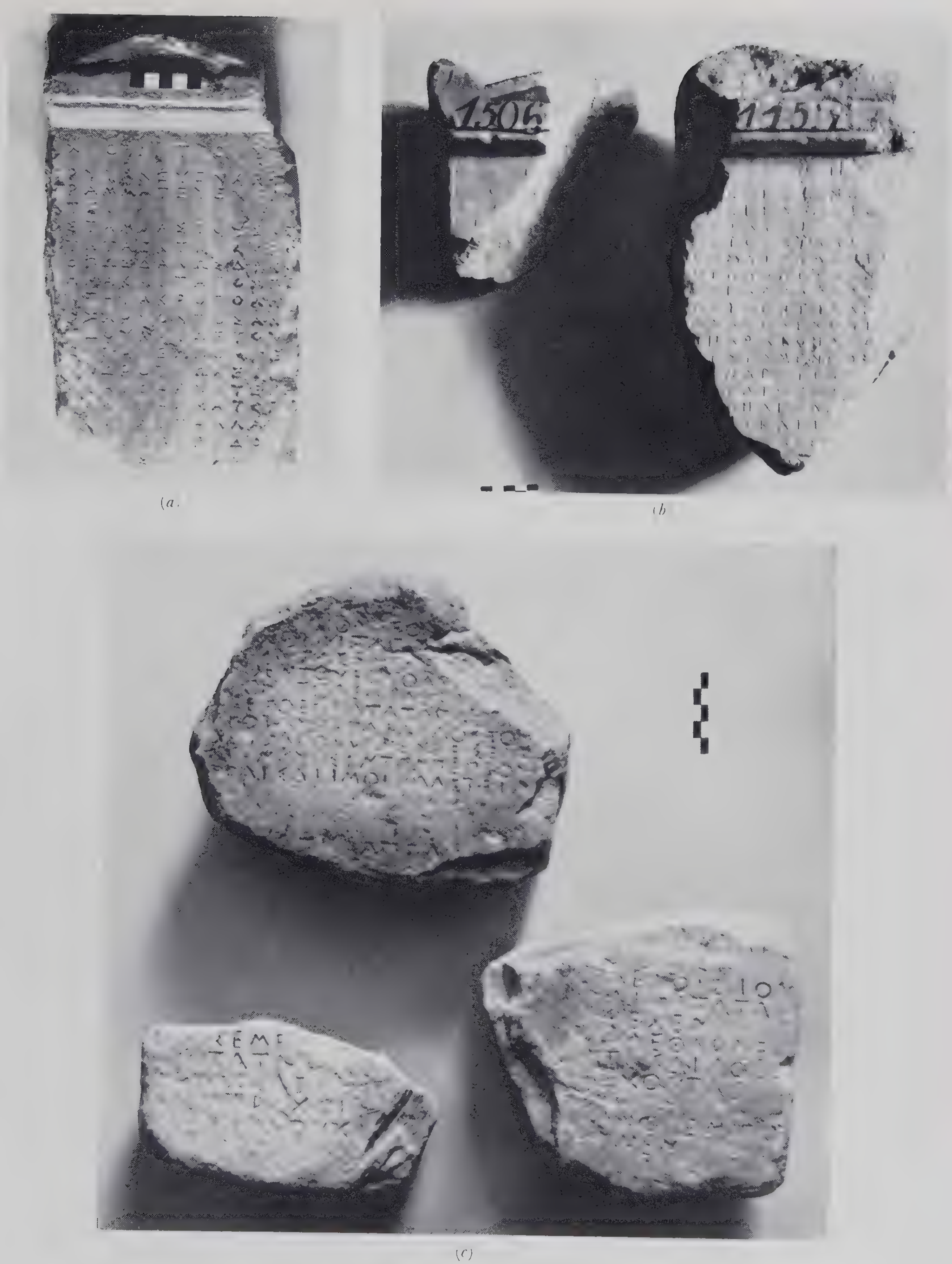
(*b*)



(*c*)

INSCRIPTIONS FROM ESKIŞEHIR AND DISTRICT.

(*a*) INSCRIPTION 3, FROM ESKIŞEHIR MUSEUM DEPÔT. (*b*) INSCRIPTION 13, FROM BURSA MUSEUM.
(*c*) INSCRIPTION 11, FROM ALPANOS.



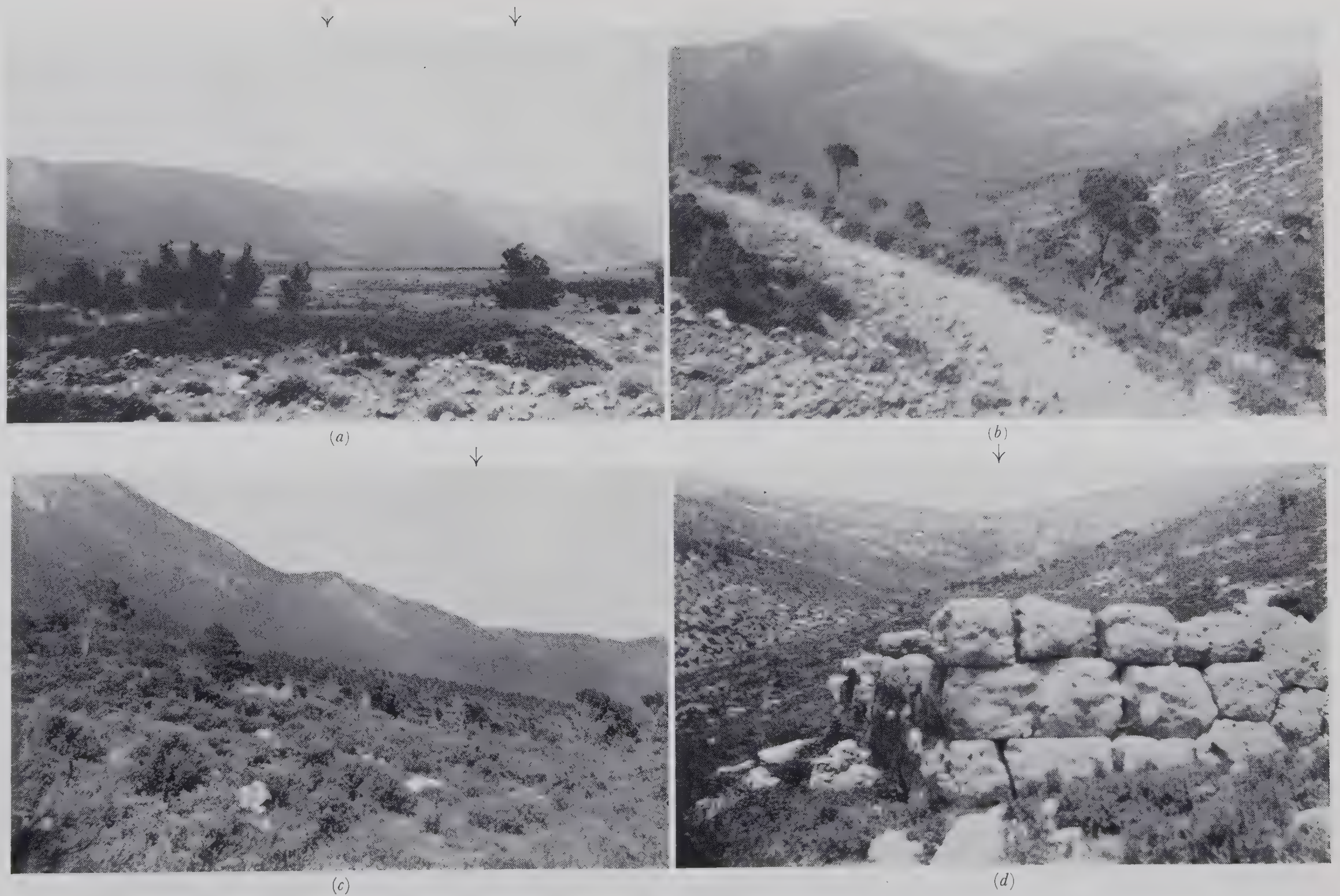
(a)

(b)

(c)

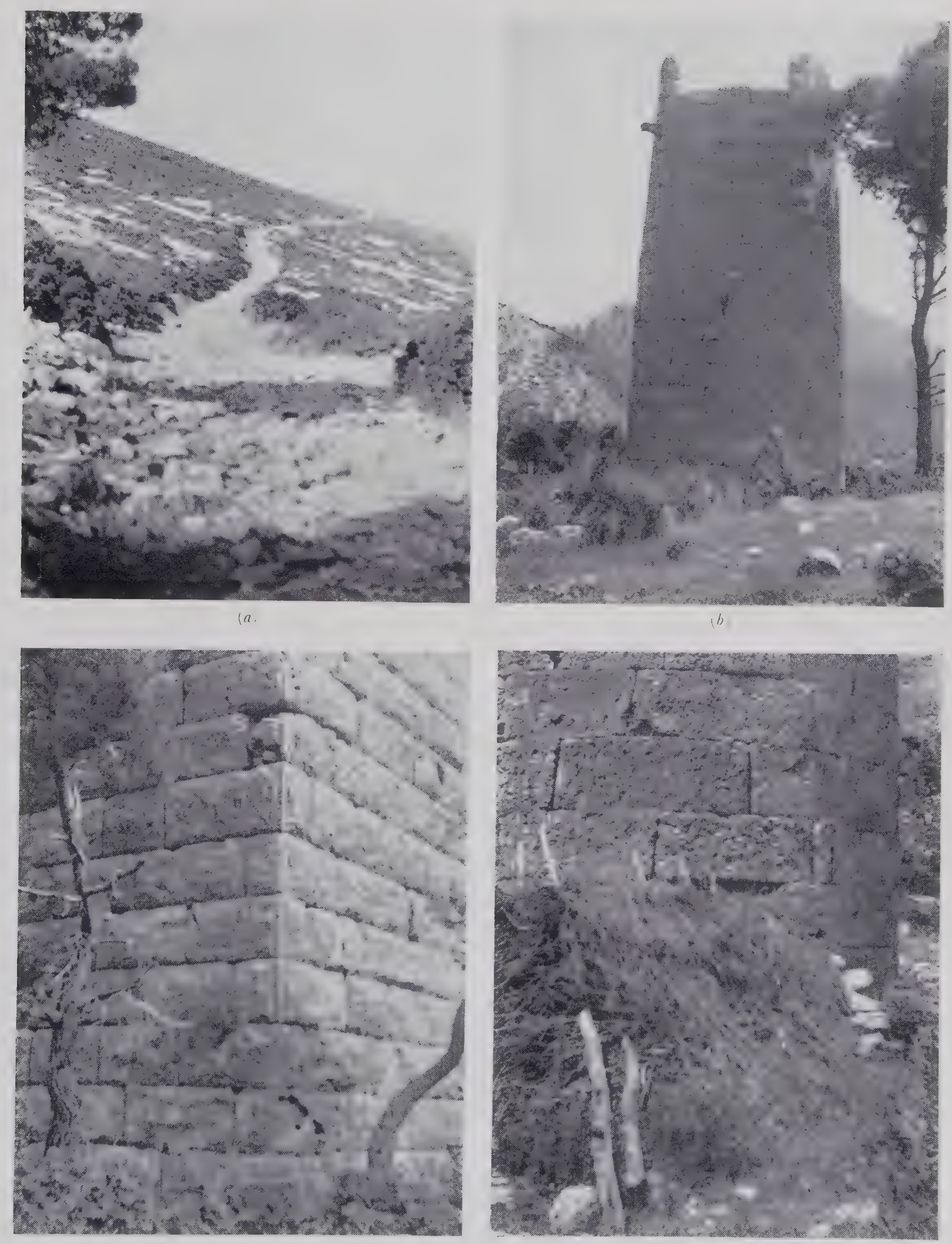
ATTIC INSCRIPTIONS.

(a) *IG* II^2 217. (b) *IG* II^2 261 and 216, frag. a. (c) *IG* I^2 80.



THE MAIN ROAD FROM BOEOTIA TO THE PELOPONNESE THROUGH THE NORTHERN MEGARID.

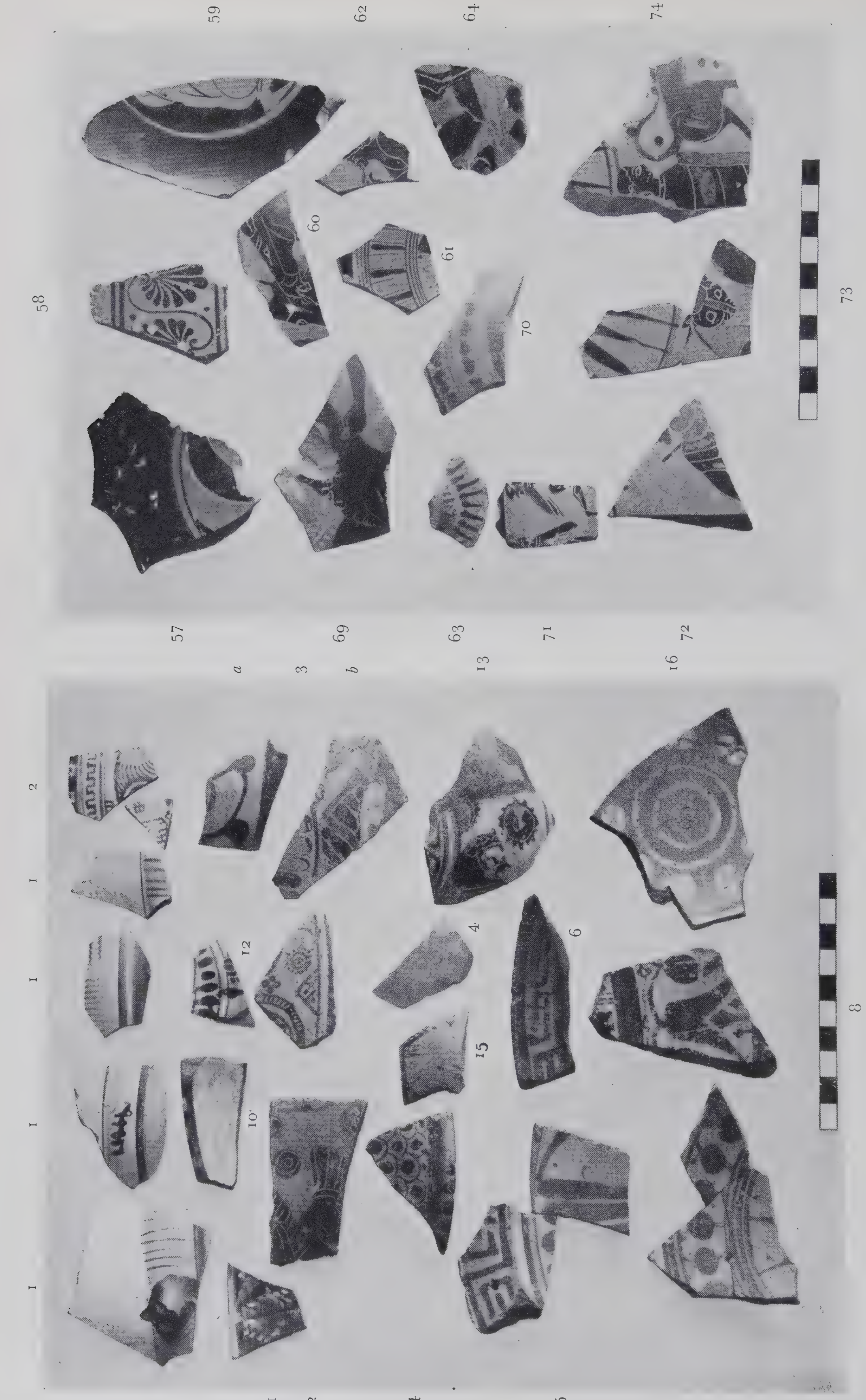
(*a*) Looking south from the flank of Mt. Cithaeron towards Mt. Karídhi (the arrows indicate the beginning and end of the road from Áyios Vasílios to the ridge top). (*b*) Looking from the road on south side of Mt. Karídhi into the basin of Megálo Vathikhóri. (*c*) Looking from the ridge east of Plátanos to the pass ' through Gerania ' (marked by arrow). (*d*) Tower E, viewed from the south, and the pass over Mt. Karidhi (marked by arrow).



(a) (b) (c) (d)

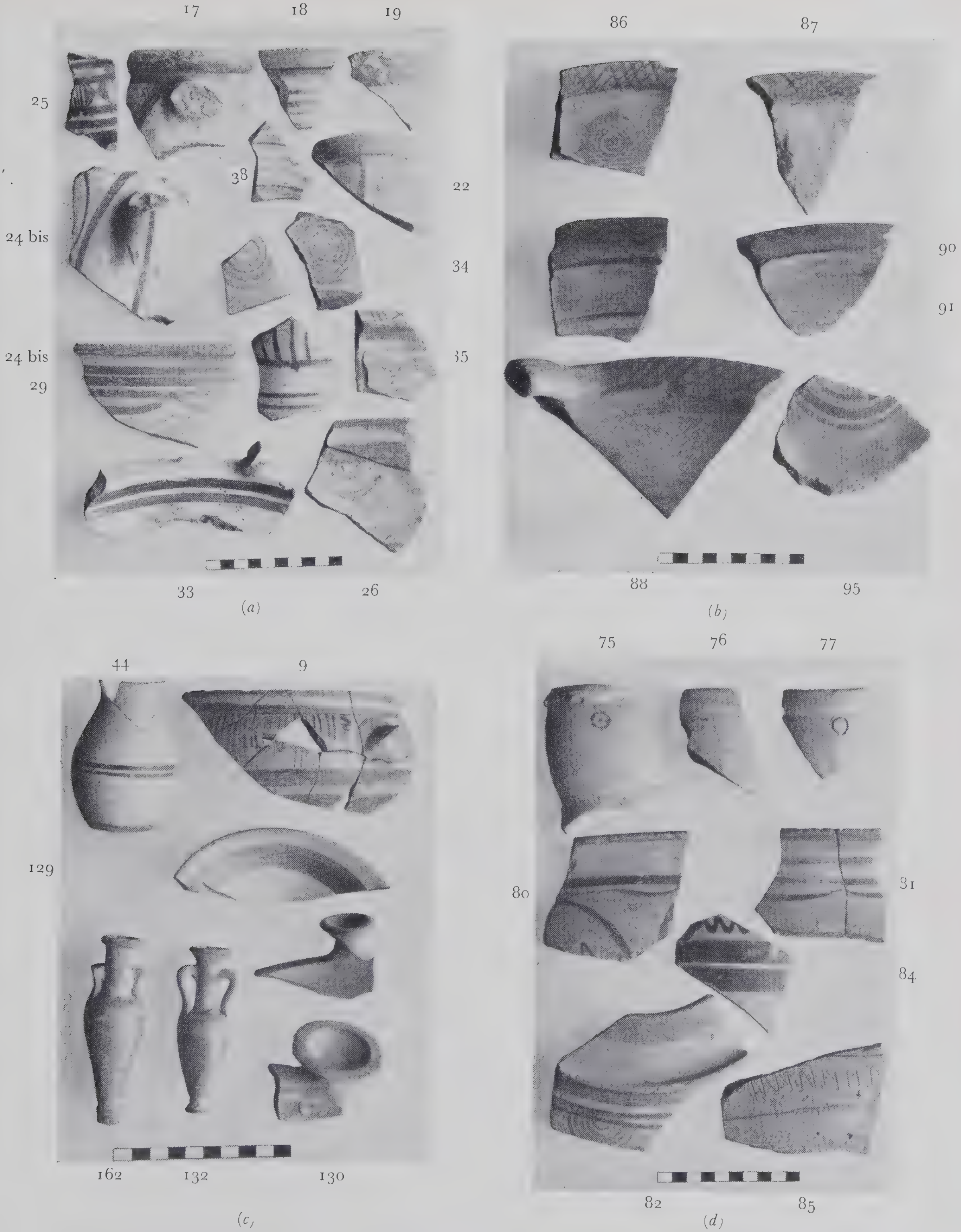
THE MAIN ROAD FROM BOEOTIA TO THE PELOPONNESE THROUGH THE NORTHERN MEGARID.

(*a*) The road ascending the flank of Mt. Karídhi from Áyios Vasílios. (*b*) Tower F, showing a slit-window and the water spout. (*c*) Tower C, showing the drafting of the angle-blocks. (*d*) Tower F; the aperture above the twigs is the top of the doorway.


57
58
59
60
61
62
63
64
69
70
71
72
73
74
1
1
1
1
1
2
3
4
5
6
8
10
11
12
12
13
14
15
16
a
b

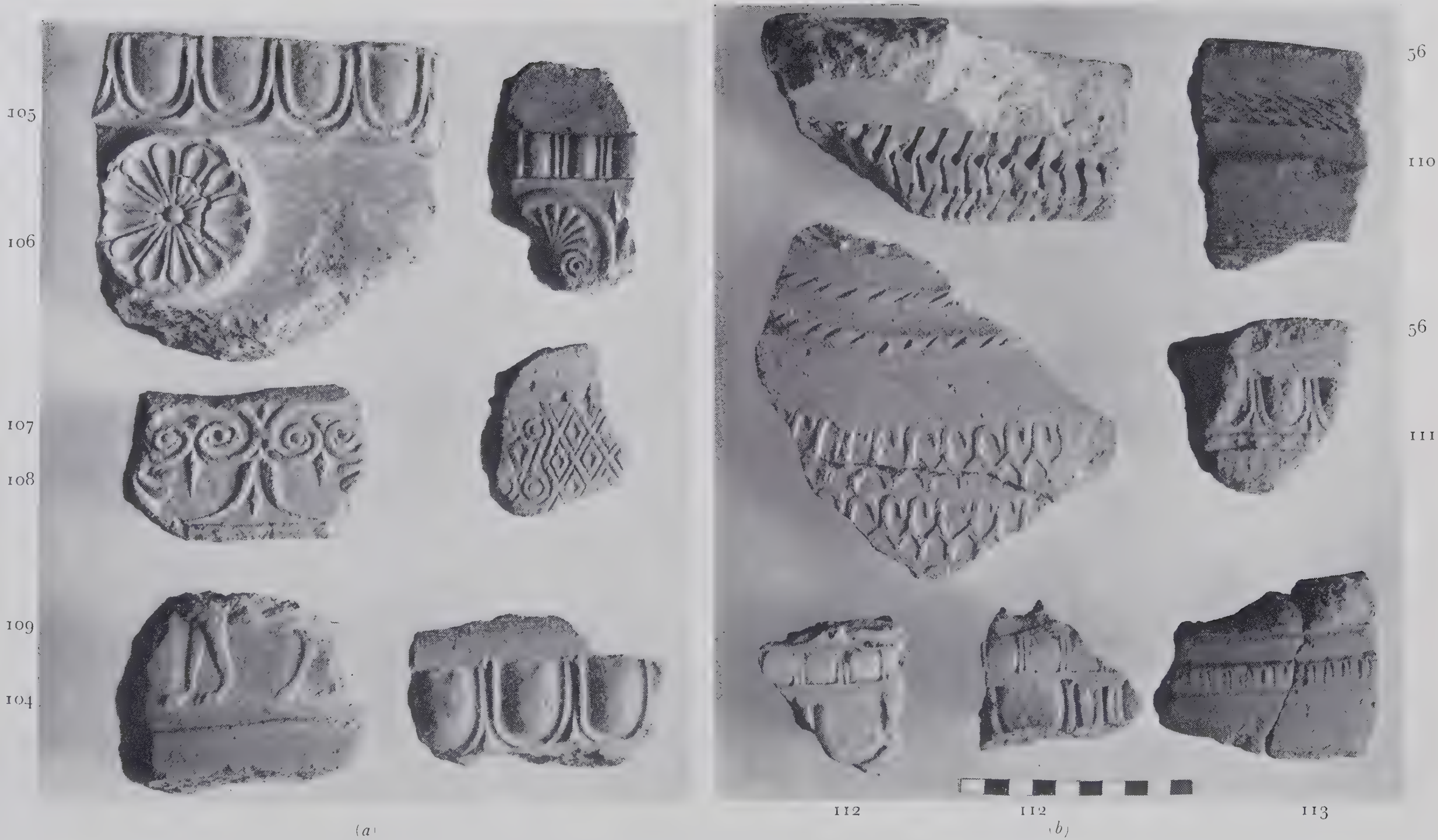
KOFINÀ.

CHIAN AND IMPORTED FINE WARES (1–16) AND ATTIC AND IONIC BLACK FIGURE (57–74).


17
18
19
25
38
22
24 bis
34
24 bis
29
35
33
26
(a)
86
87
90
91
88
95
(b)
44
9
129
162
132
130
(c)
75
76
77
80
81
84
82
85
(d)

KOFINÀ.

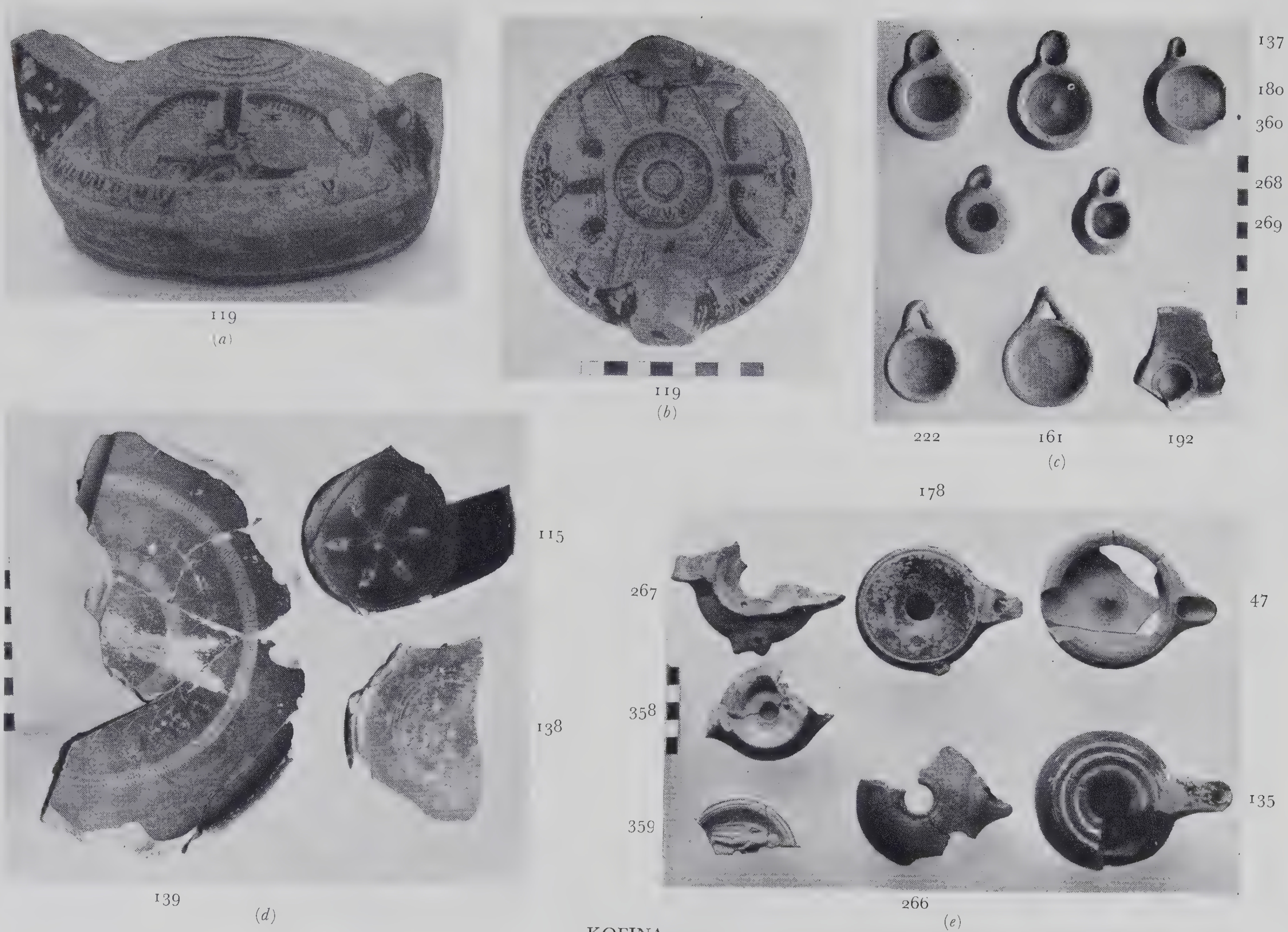
(*a*) AMPHORAE AND BASINS. (*b*) LARGE BASINS. (*c*) KERNOS FRAGMENTS AND MINIATURE AMPHORAE. (*d*) AMPHORAE AND KRATERS.


105
106
107
108
109
104
56
110
56
111
112
112
113

(a) (b)

KOFINA.

(a) Architectural Fragments, *etc.* (b) Relief Pithoi.


119
137
180
360
268
269
222
161
192
119
178
115
267
47
358
138
359
135
139
266

(a)

(b)

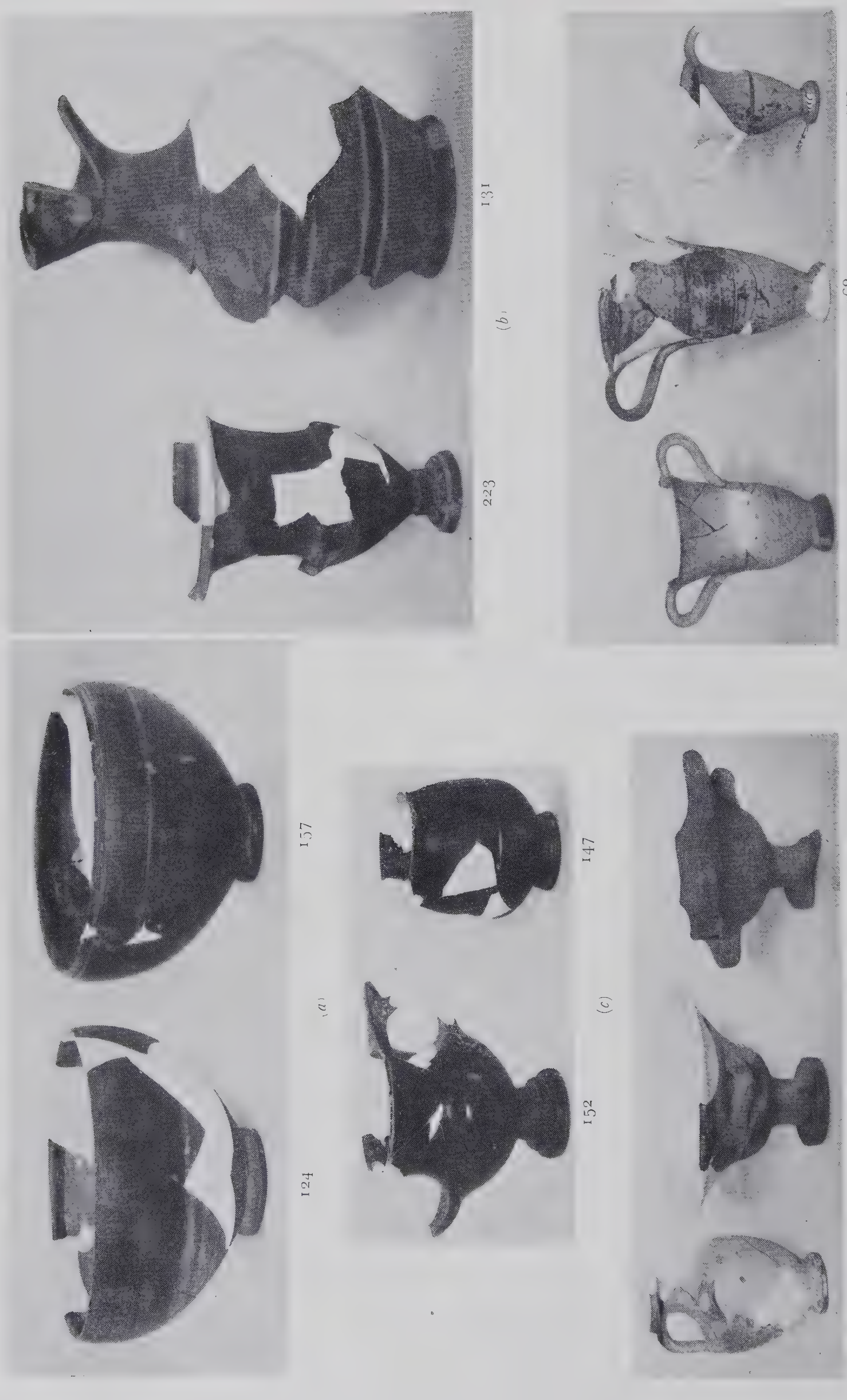
(c)

(d)

(e)

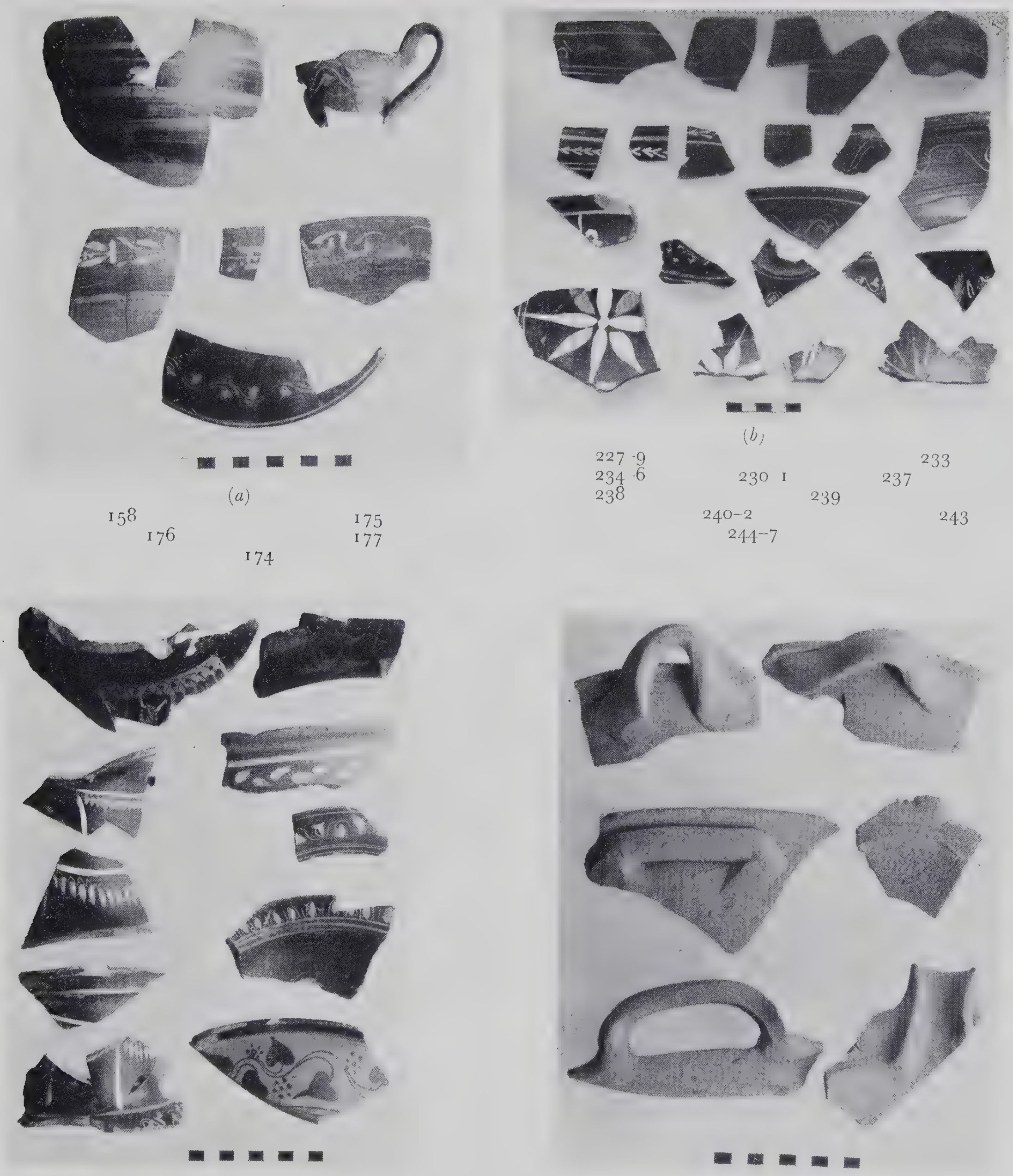
KOFINA.

(a) (b) ASKOS (119). (c) and (e) LAMPS. (d) ATTIC BLACK GLAZE.


(a)
124
157
(b)
223
131
(c)
152
147
(d)
134
171
172
(e)
133
168
170

KOFINÀ.

(*a*) Half-glazed Bowls. (*b*) Krater-shaped Vase and Oinochoe. (*c*) Kantharoi. (*d*) Miniature Hydria and Drinking Cups. (*e*) White-slipped Goblets.



(a)

158
176
174
175
177

(b)

227-9
234-6
238
230-1
240-2
244-7
239
233
237
243

(c)

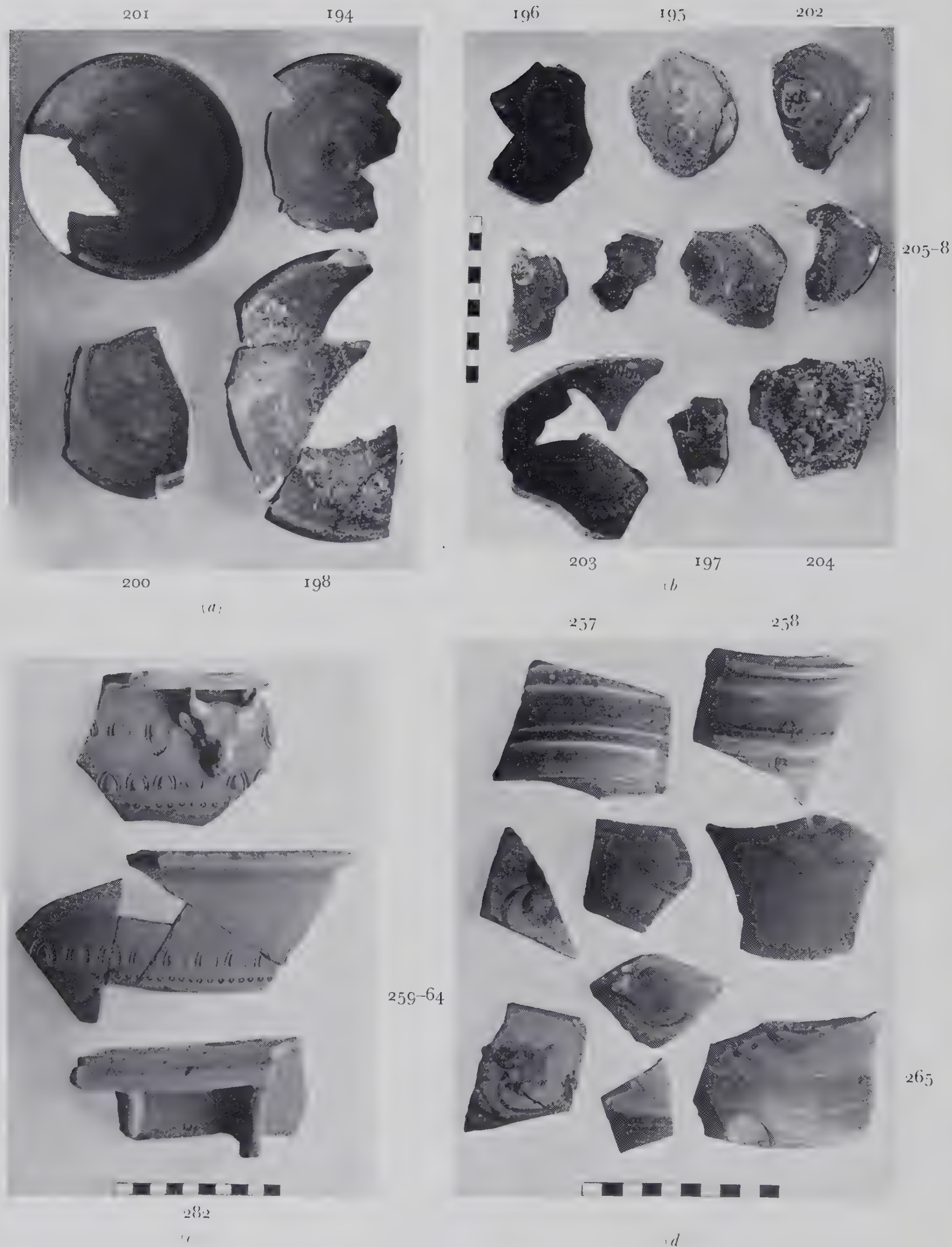
65
248
249
250
251
66
256 bis
252
253
369

(d)

185
285
287
284
289
290

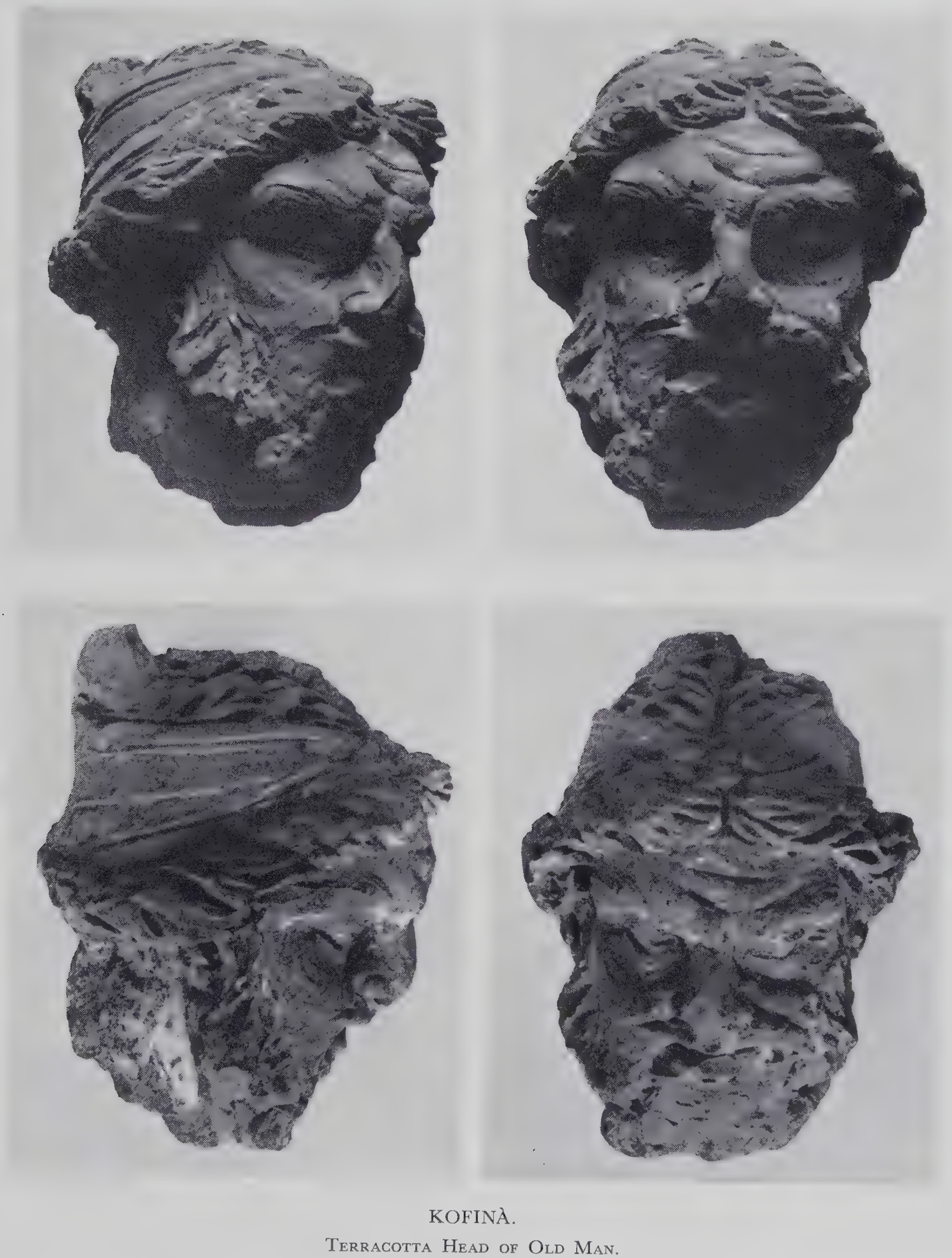
KOFINÀ.

(*a*) and (*b*) West Slope Ware. (*c*) Attic and West Slope Ware. (*d*) Large Basins.


201
194
196
195
202
205–8
200
198
(a)
203
197
204
(b)
257
258
259–64
265
282
(c)
(d)

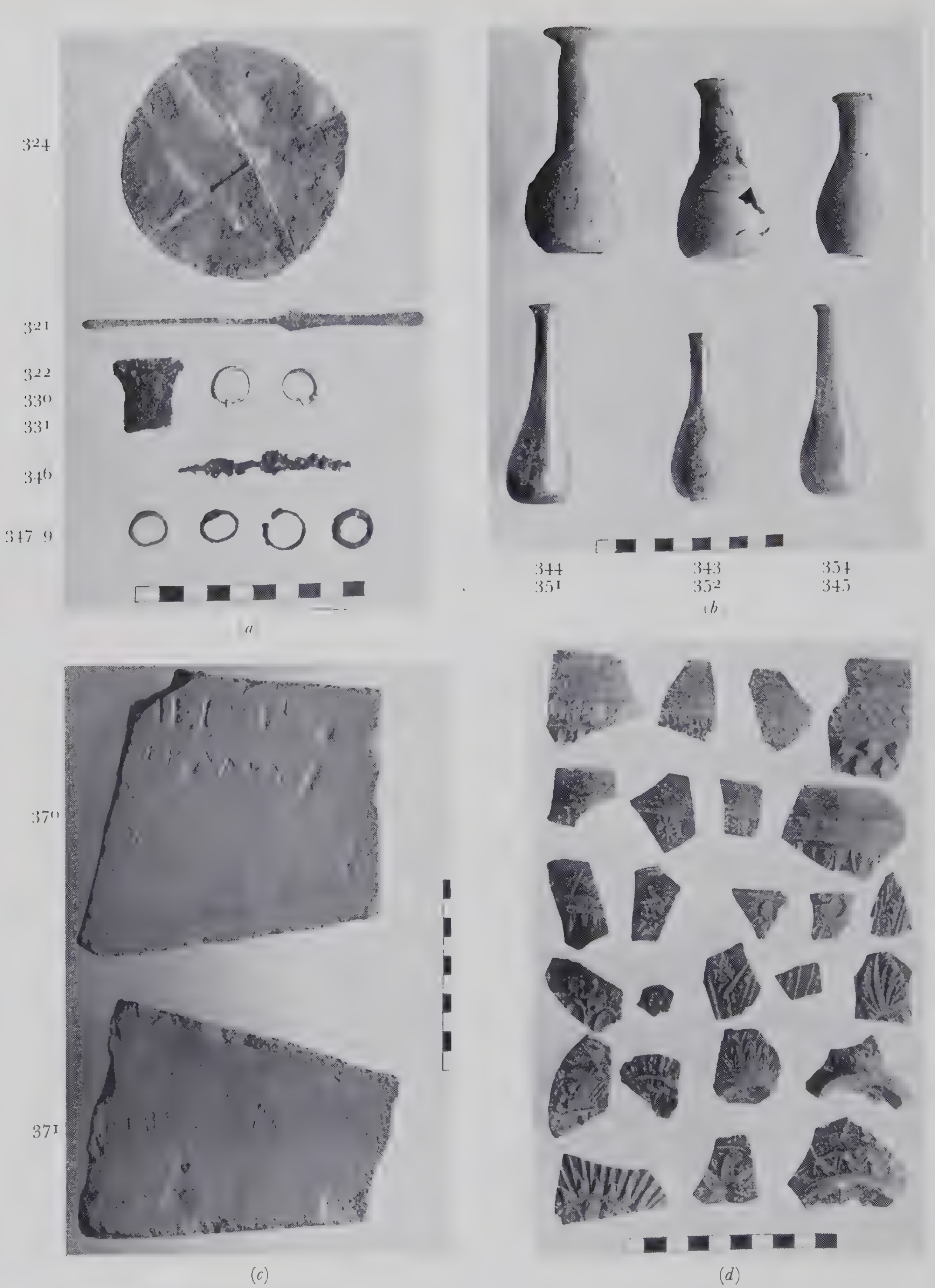
KOFINÀ.

(*a*) BOWL OF ATTIC BLACK GLAZE (194) AND PLATE OF GREY WARE. (*b*) BOWLS OF BLACK GLAZE AND GREY WARE WITH STAMPED DECORATION. (*c*) COLUMN-KRATER WITH STAMPED AND RELIEF DECORATION. (*d*) LARGE PAINTED POTS.



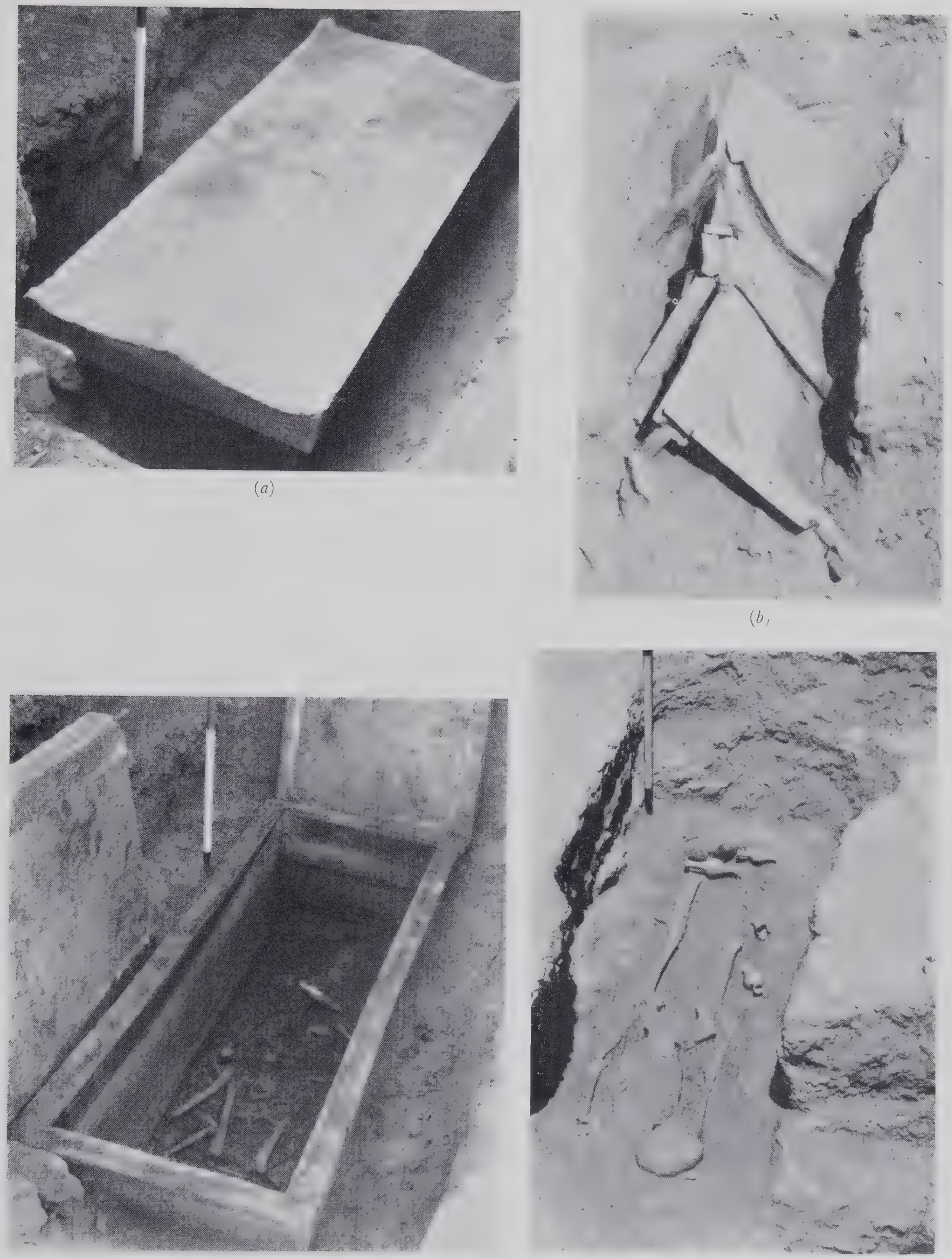
KOFINÀ.

Terracotta Head of Old Man.


324
321
322
330
331
346
347–9
a
344
351
343
352
354
345
b
370
371
(c)
(d)

KOFINÀ.

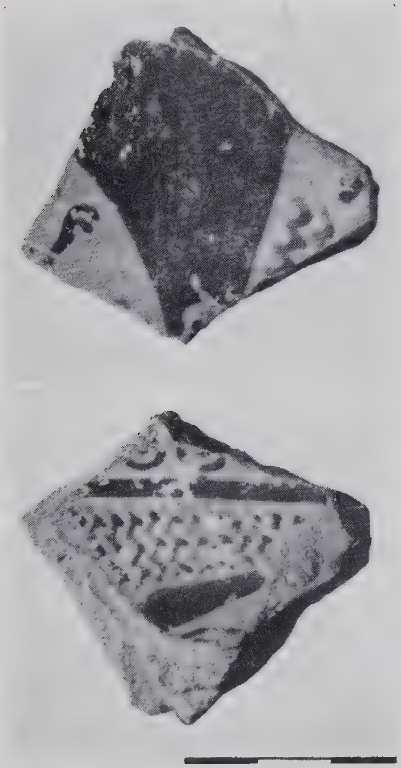
(*a*) Objects from Tombs. (*b*) Clay and Glass Perfume Bottles from Tombs 13–15.
(*c*) Inscribed Tiles. (*d*) Megarian Bowls (see text, p. 165).

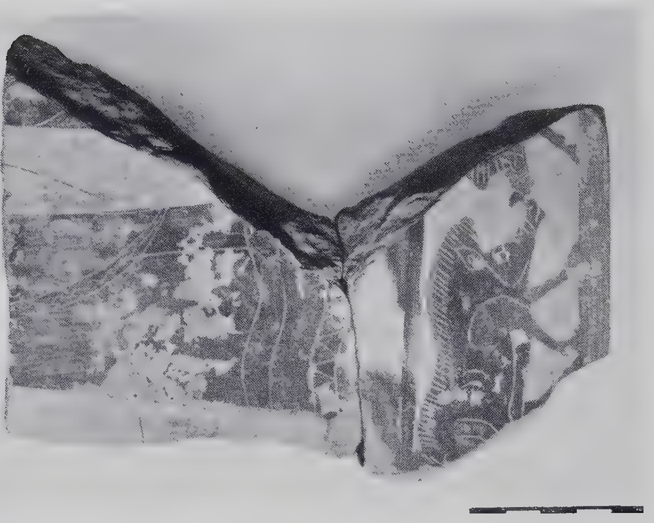


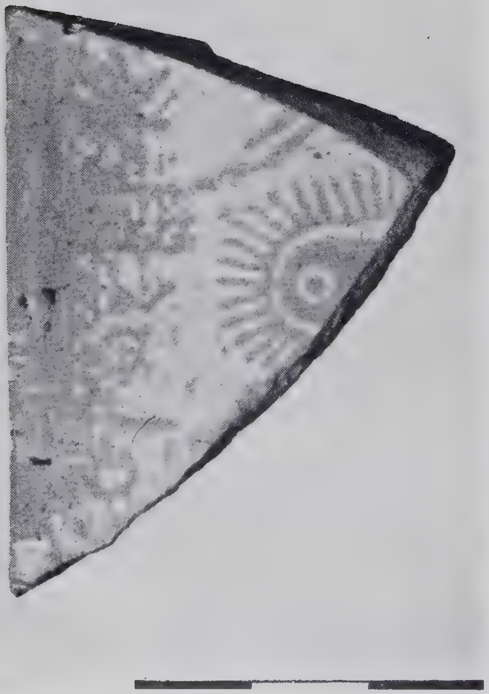
(a) (b) (c) (d)

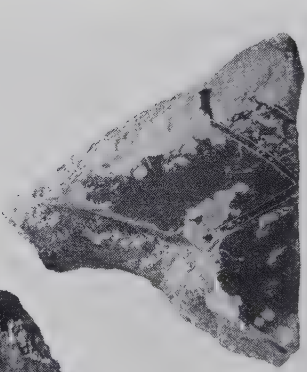
KOFINÀ.

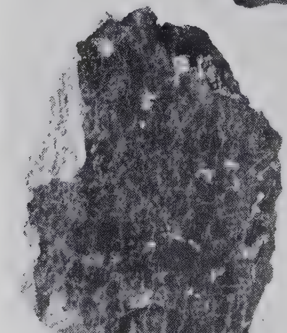
(a) and (c) GRAVE 13 (UNOPENED AND OPENED).
(b) and (d) GRAVE 12 (BEFORE AND AFTER REMOVAL OF TILES).

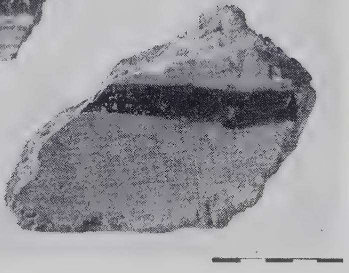

2


6


1

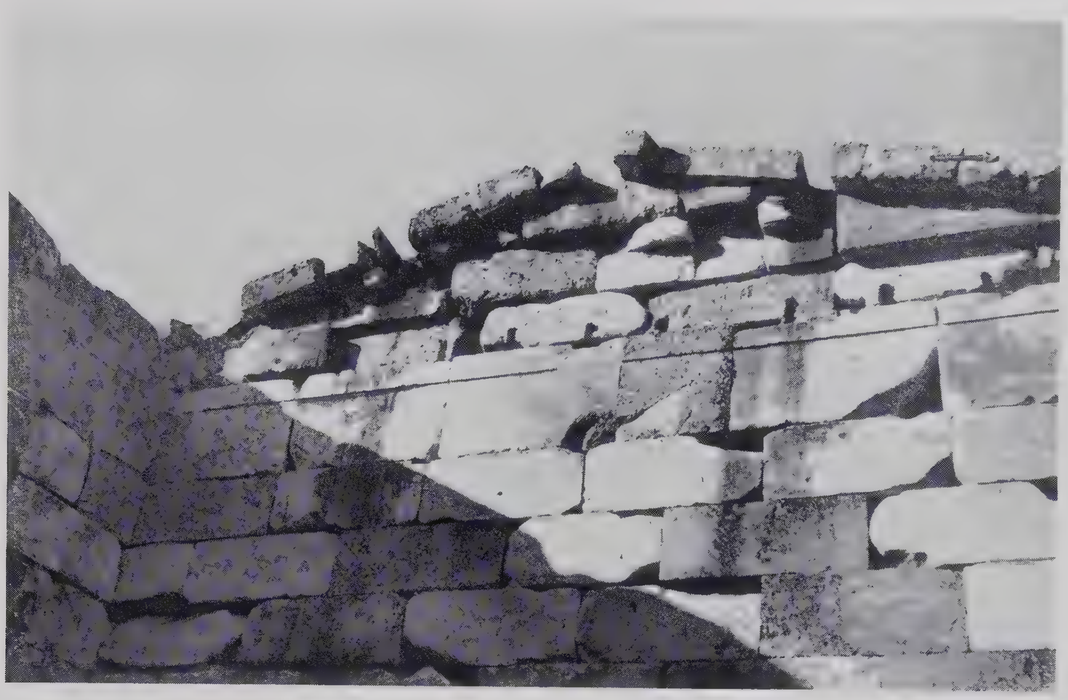

5


4

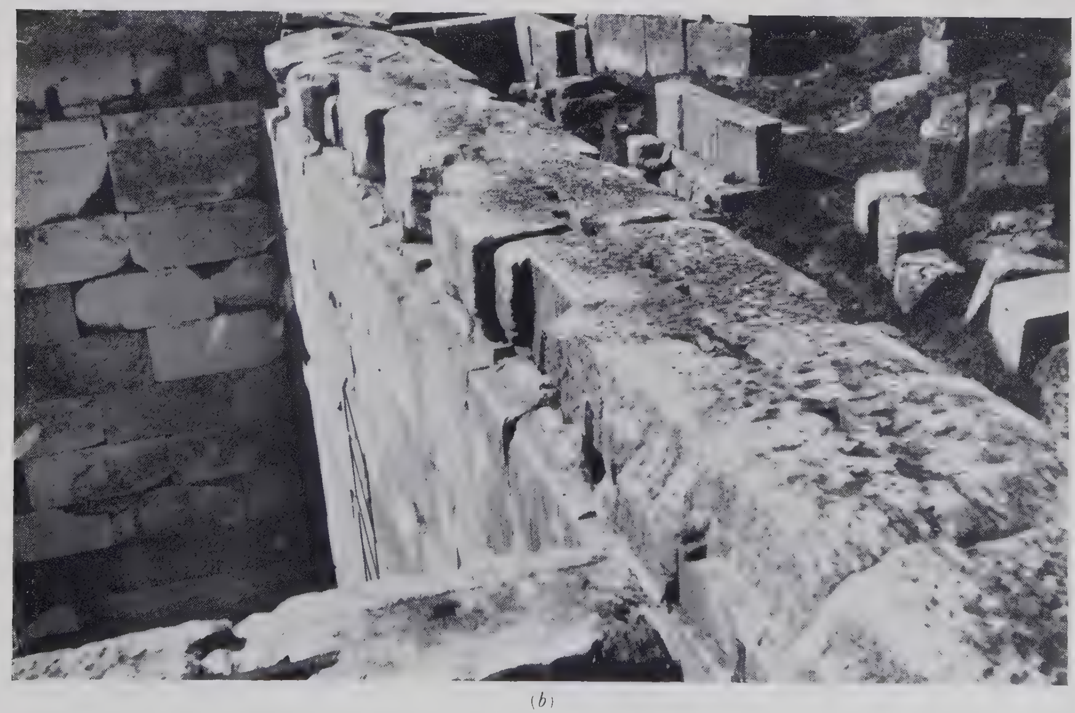

3

PAINTED VOTIVE PLAQUES.

(1) pp. 184–186. (2) p. 196. (3) and (4) p. 201. (5) and (6) p. 200.

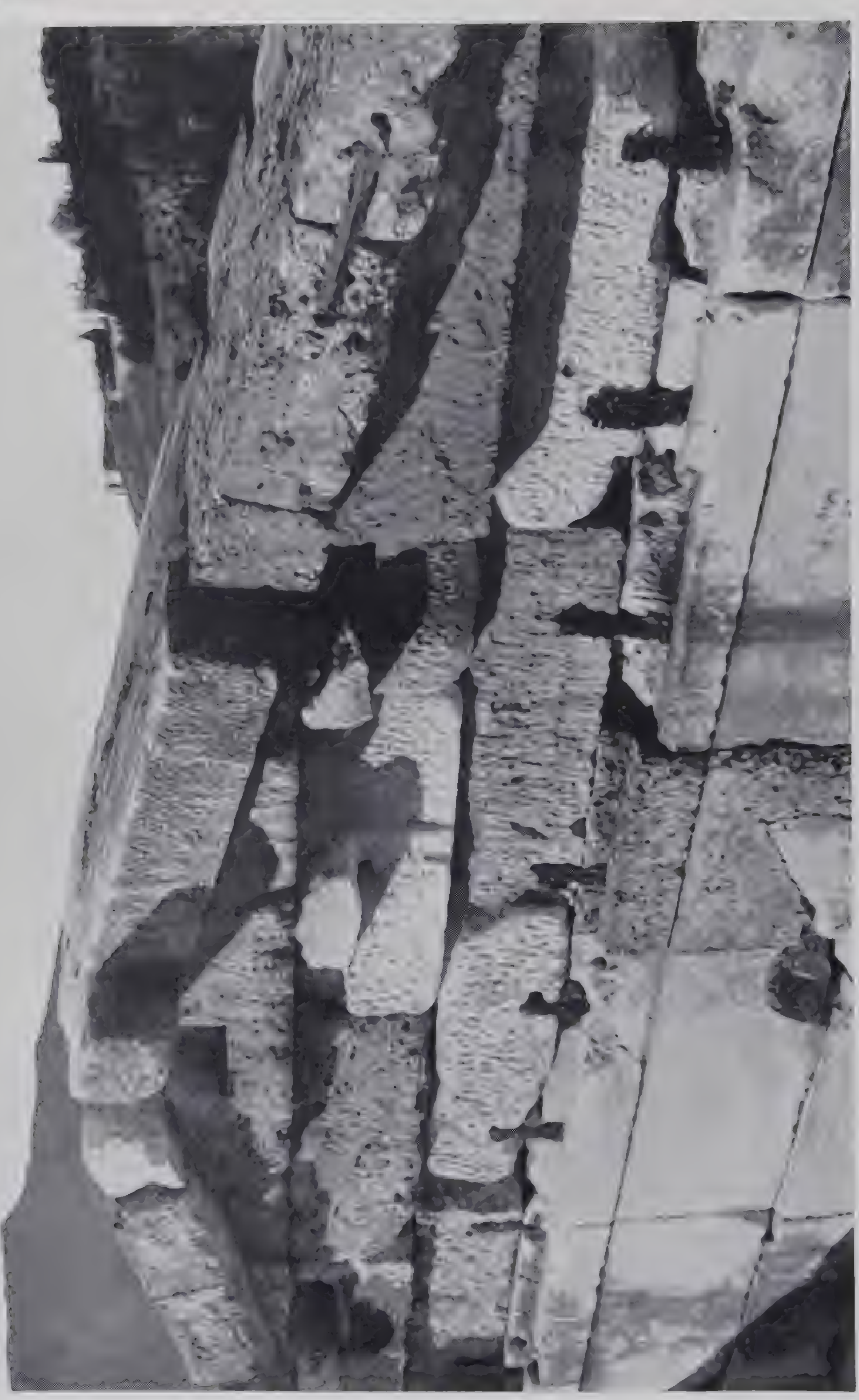


(*a*)



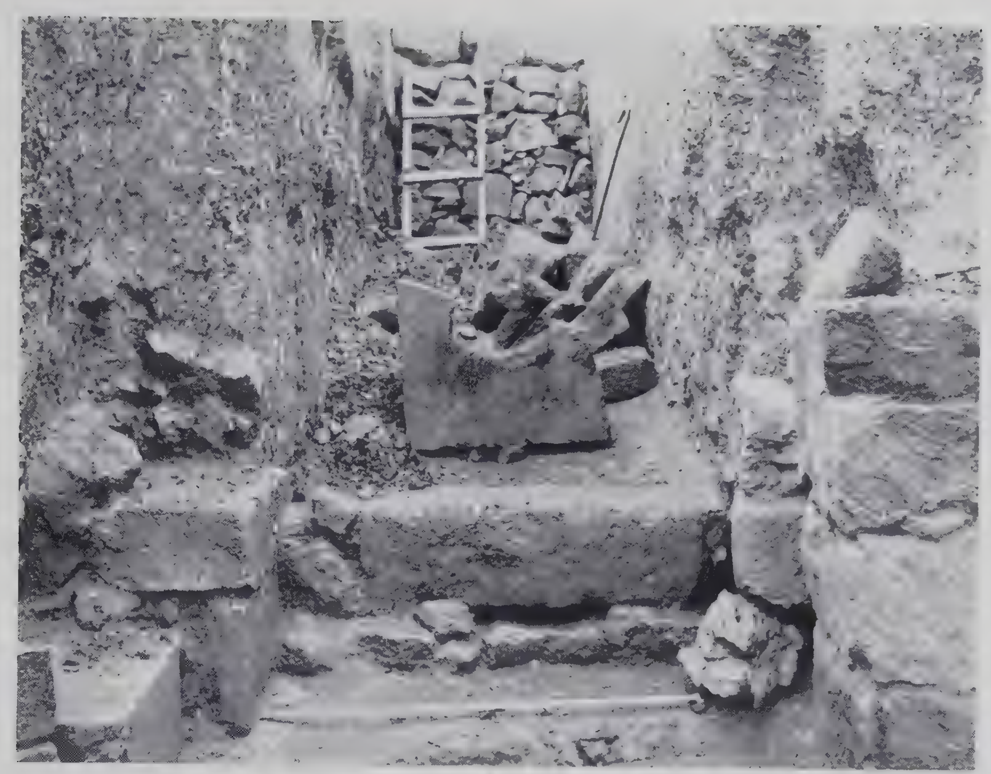
(*b*)

THE TREASURY OF THE ATHENIANS AT DELPHI.
(*a*) West Pediment from the Cella. (*b*) Side Cornice, Looking West.

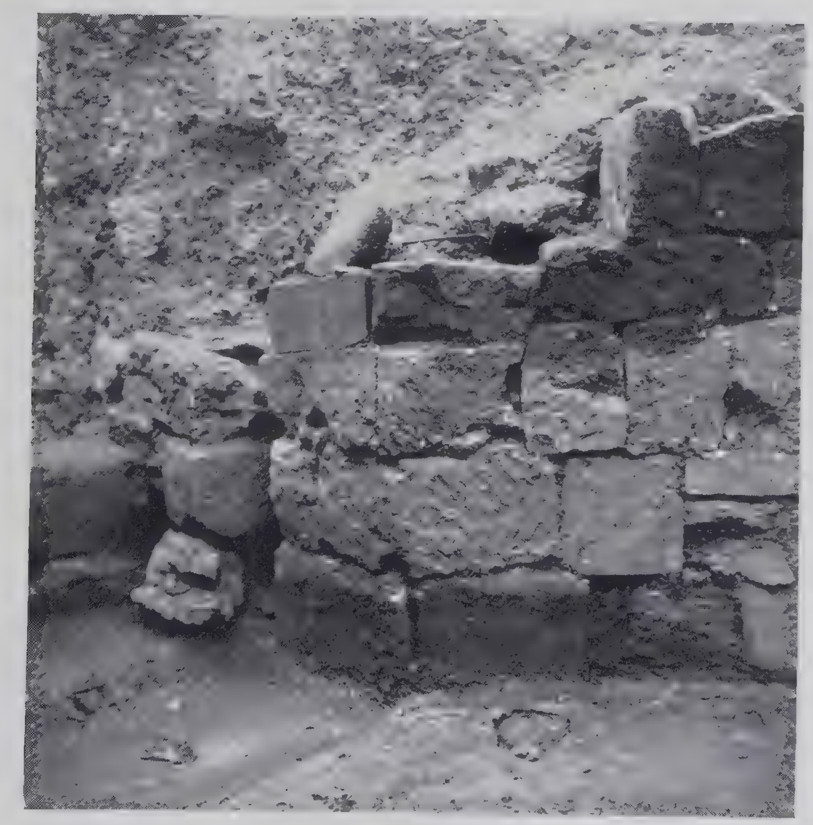


THE TREASURY OF THE ATHENIANS AT DELPHI.

Inner Face of West Pediment.



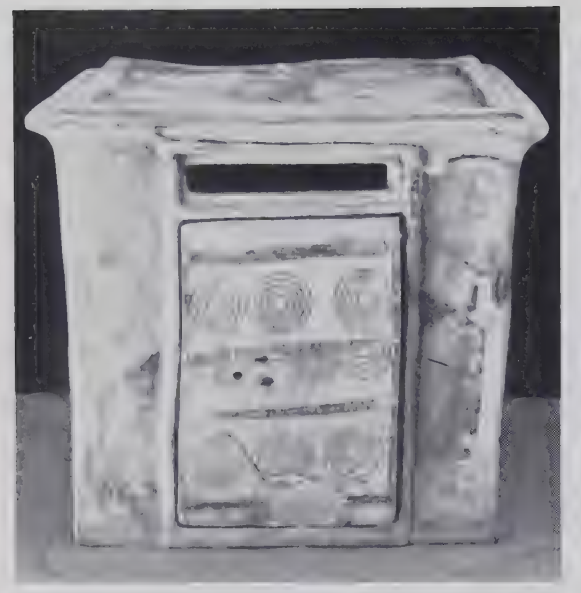
(*a*)



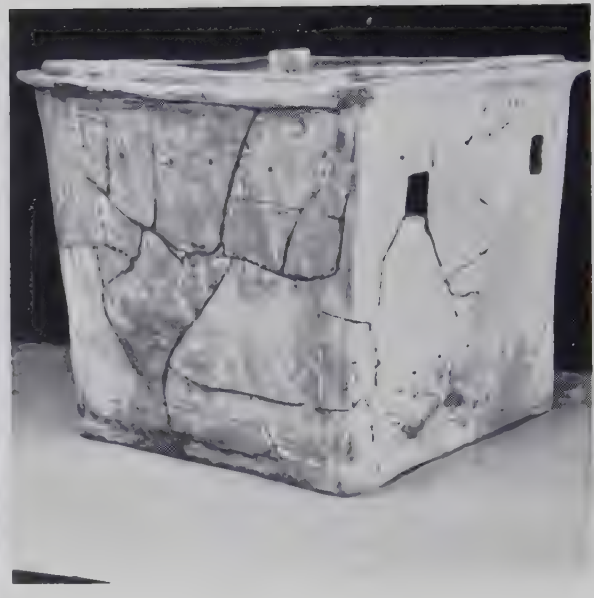
(*b*)

KHANIALE TEKKE TOMBS.

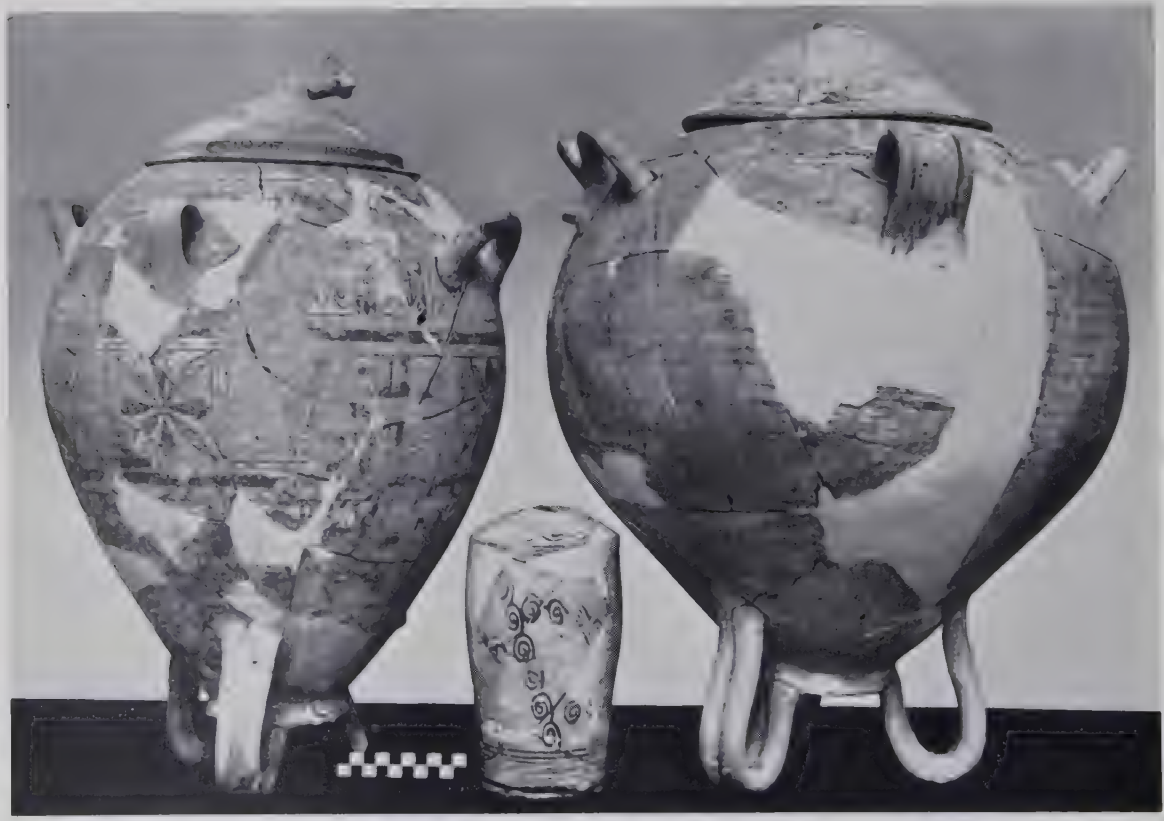
(*a*) *Dromos*. (*b*) REMAINS OF CHAMBER AND VAULT.



1

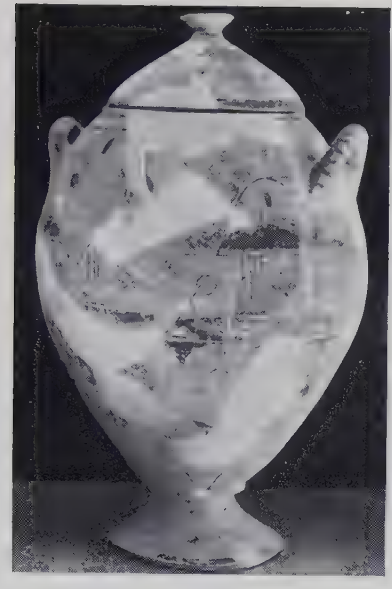


1

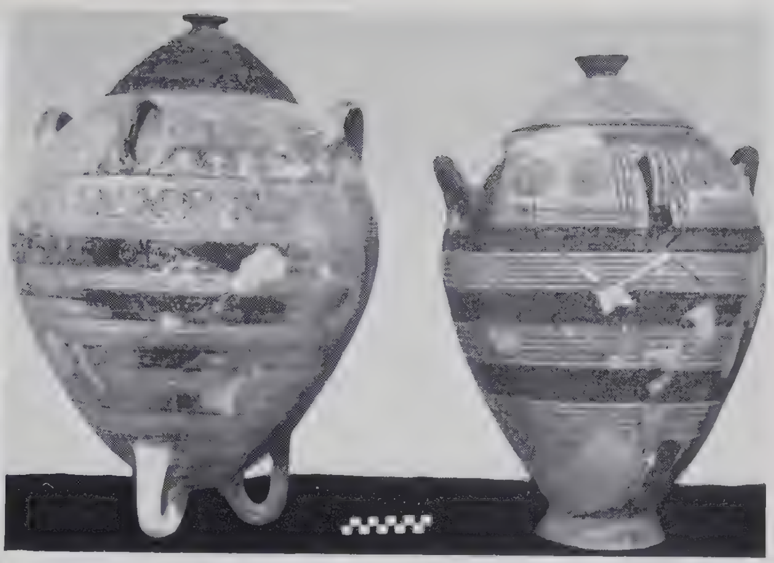


3 26 5

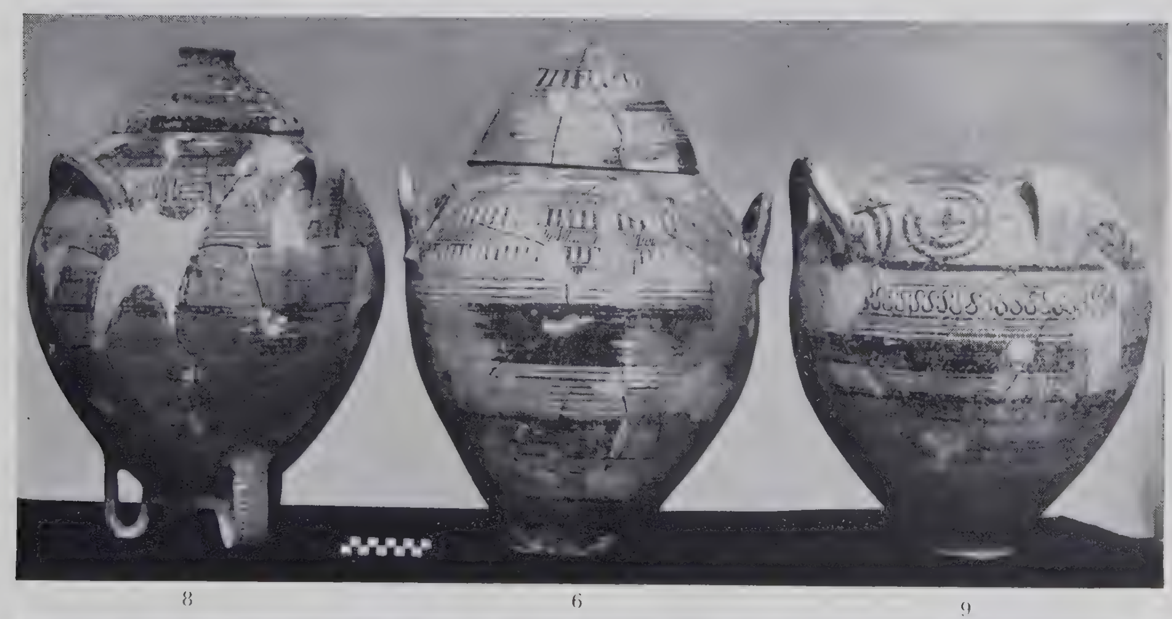
KHANIALE TEKKE TOMBS. HOUSE MODEL AND POTTERY.



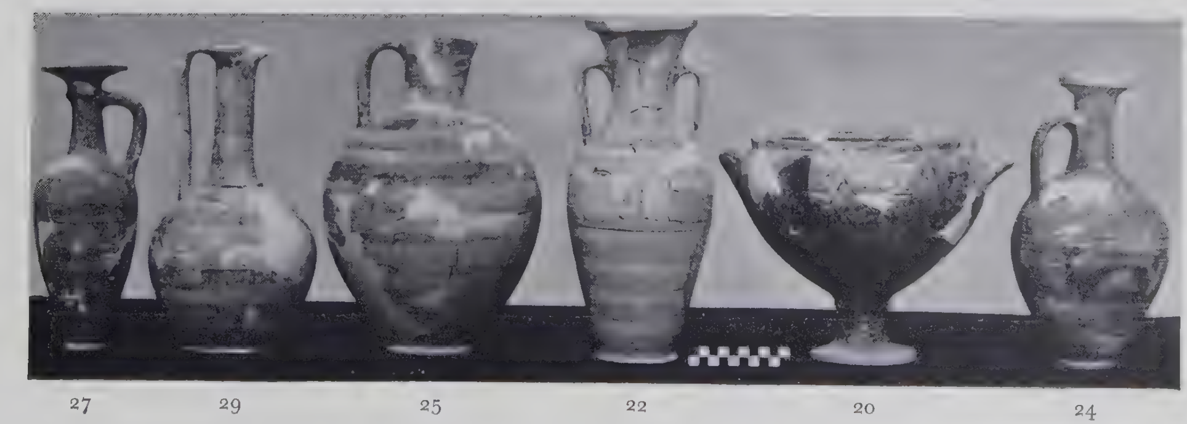
4



7 10

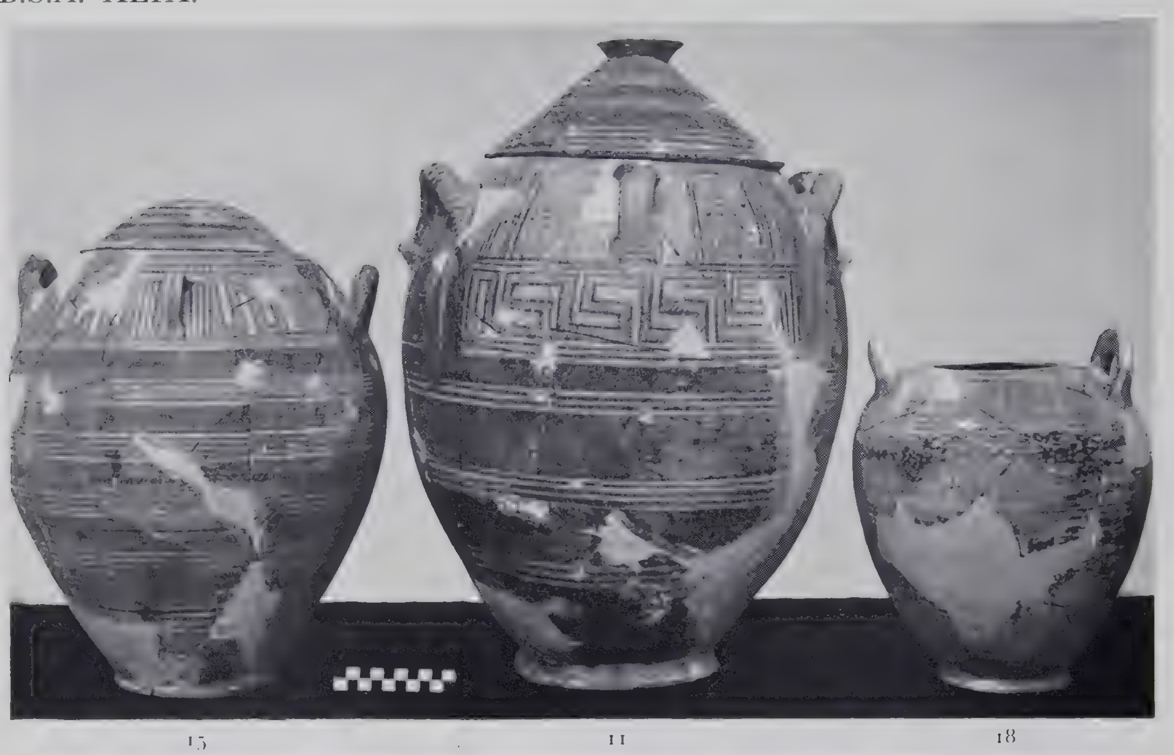


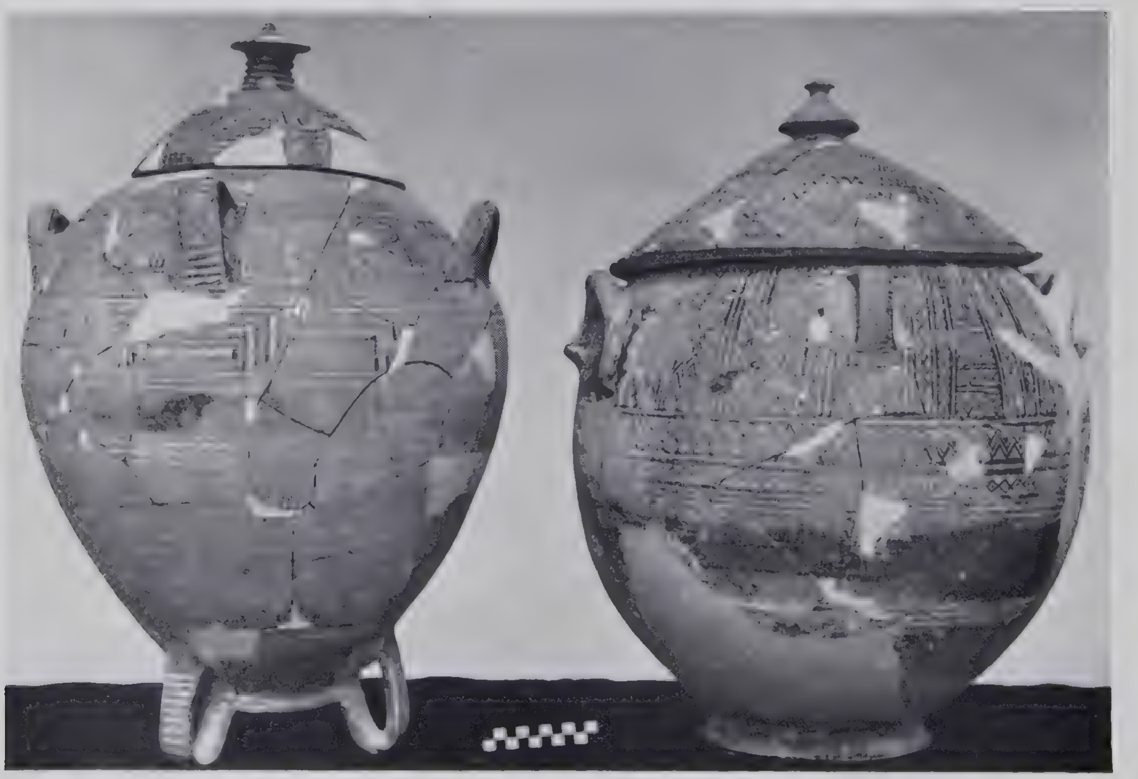
8 6 9



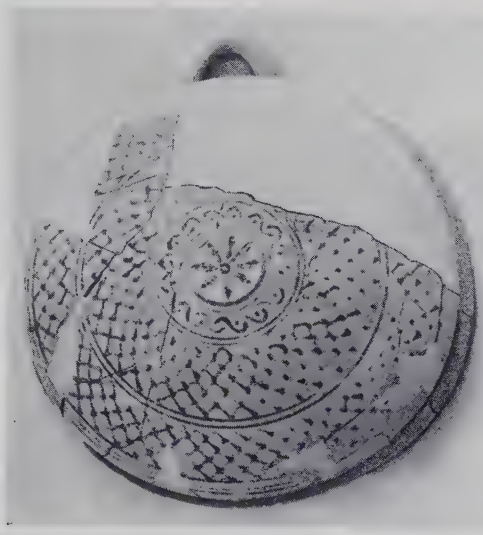
27 29 25 22 20 24

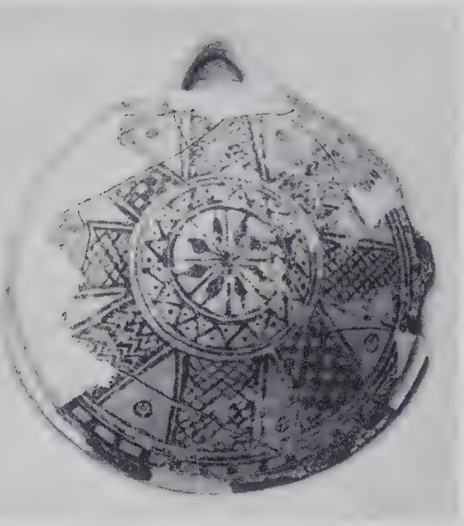
KHANIALE TEKKE TOMBS. POTTERY.

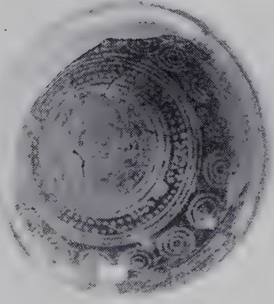


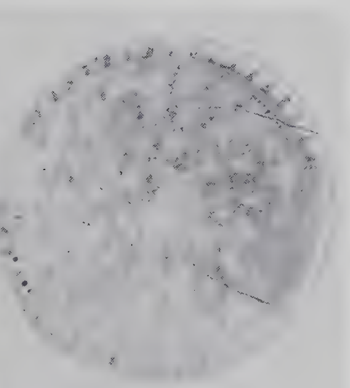


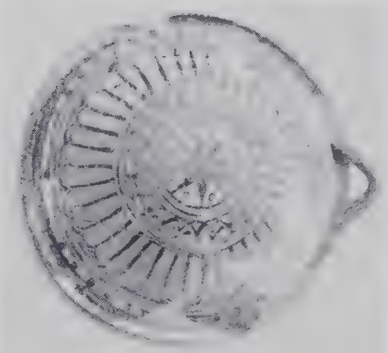
KHANIALE TEKKE TOMBS. POTTERY.

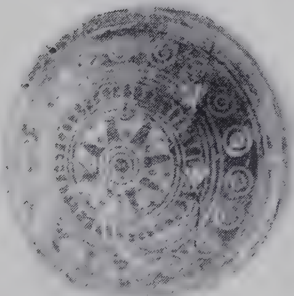

40

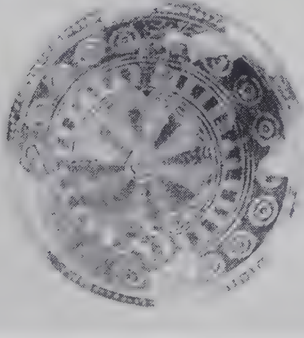

43

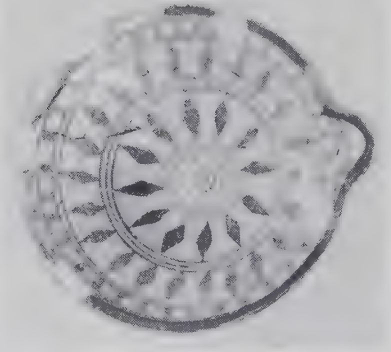
53



54

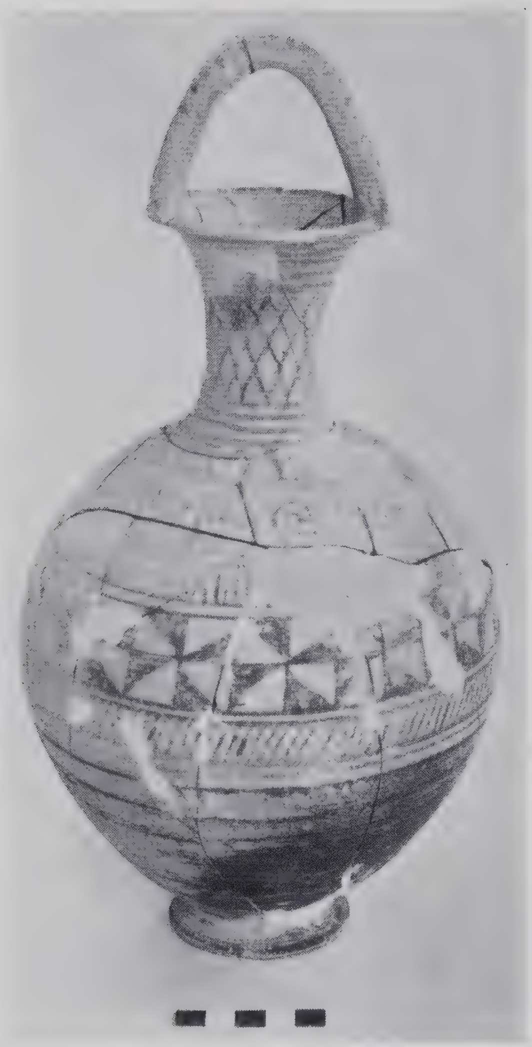

41

50


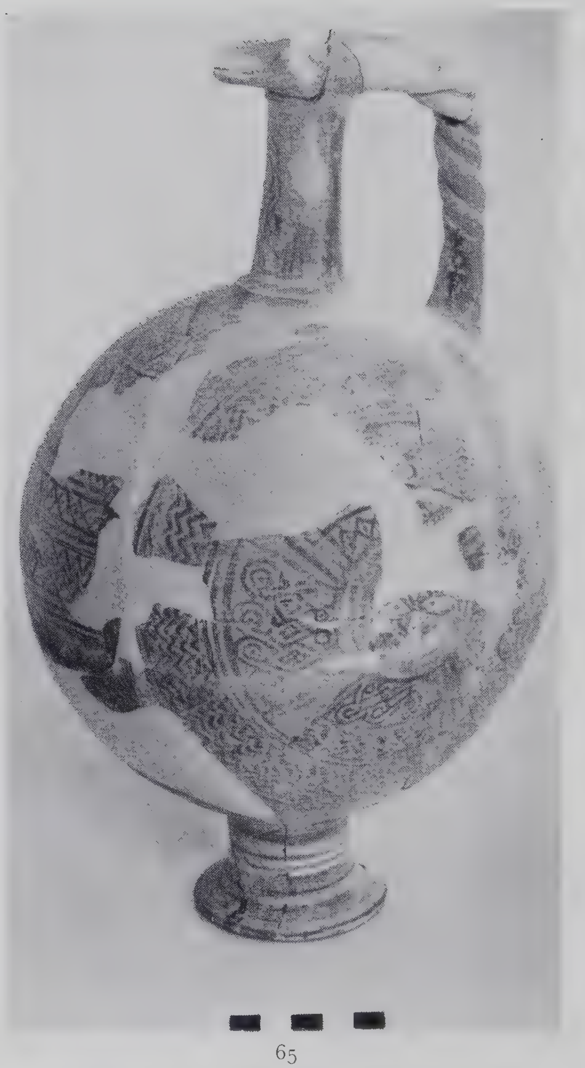

51


39

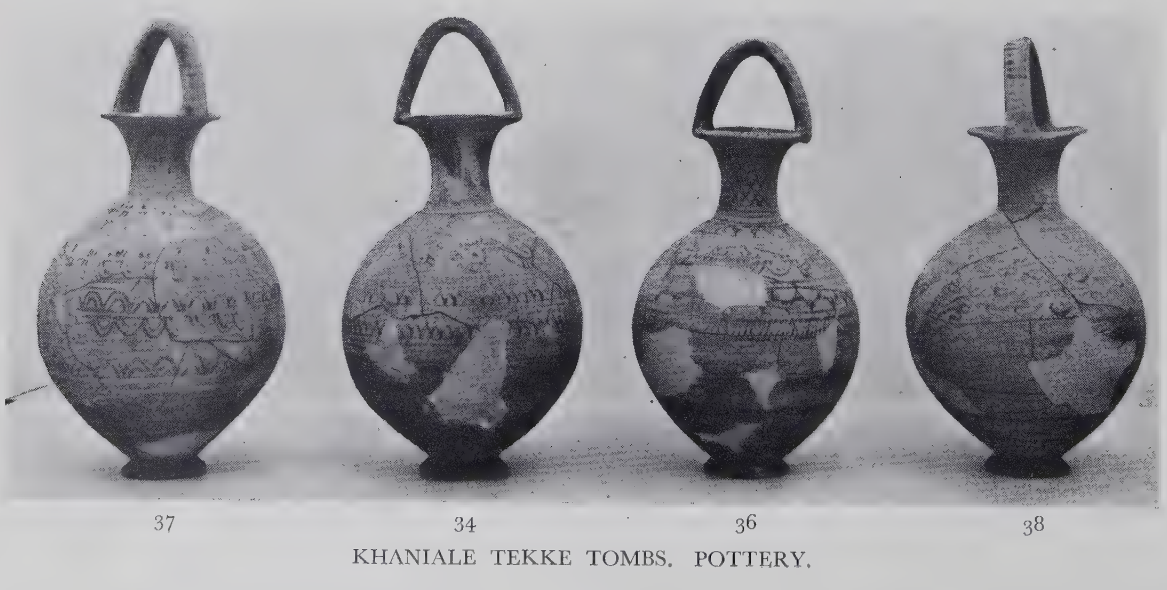
KHANIALE TEKKE TOMBS. POTTERY.



35

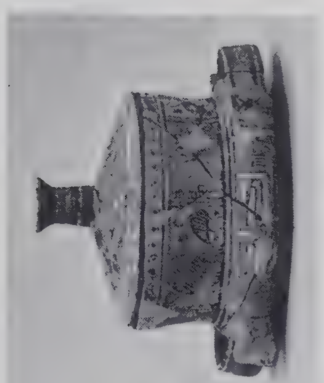


65

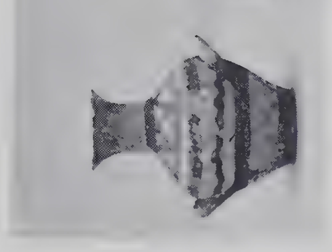


37 34 36 38

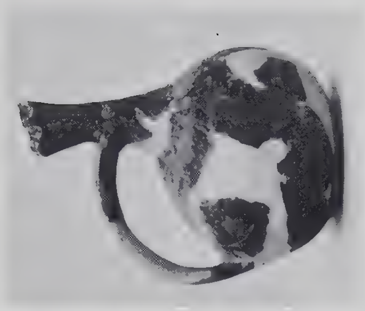
KHANIALE TEKKE TOMBS. POTTERY.



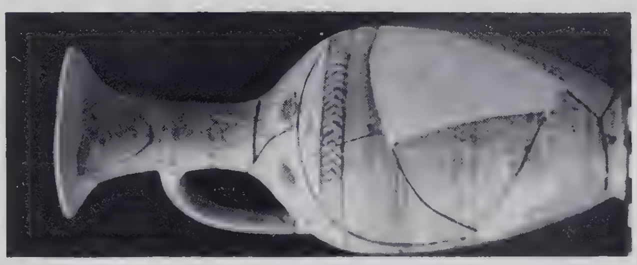
55



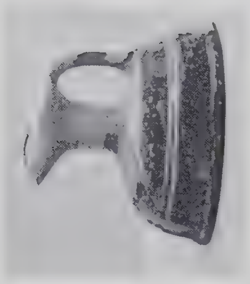
95



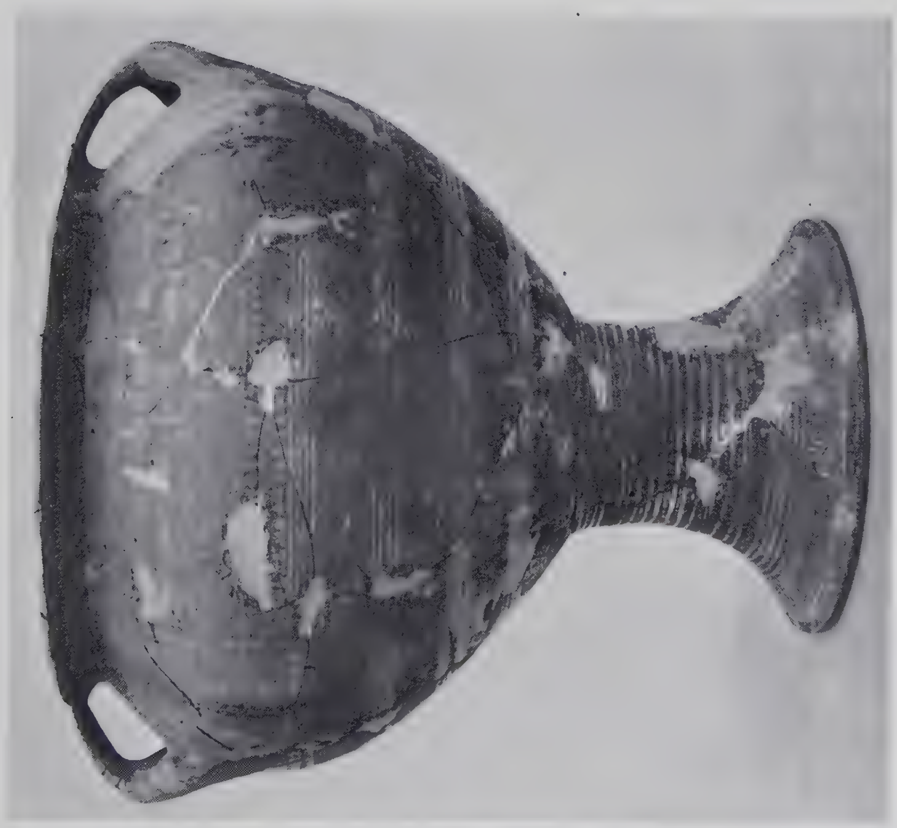
111



28

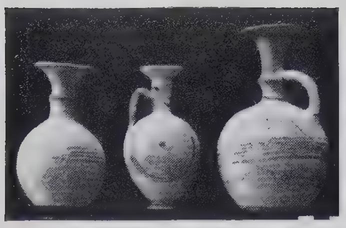


31

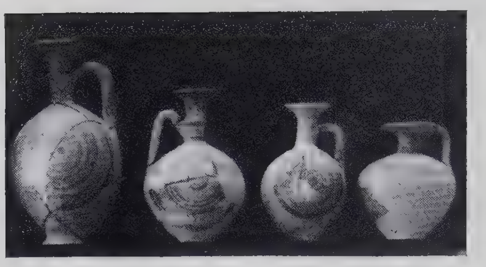


19

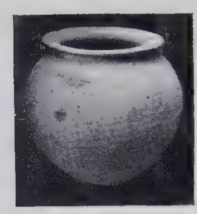
KHANIALE TEKKE TOMBS. POTTERY.



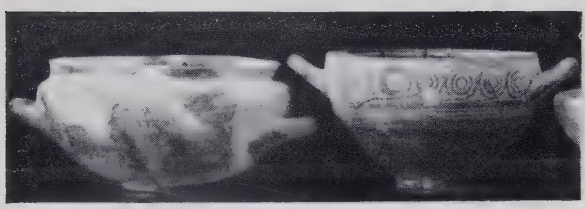
60 62 59



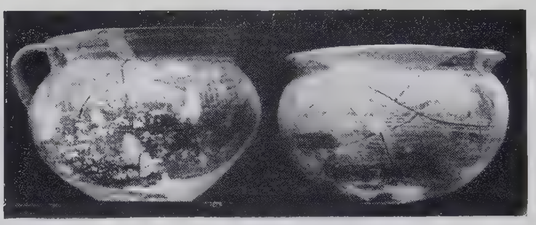
58 61 63 68



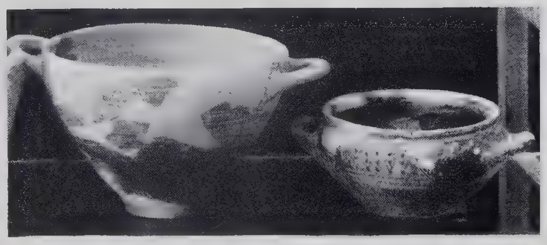
57



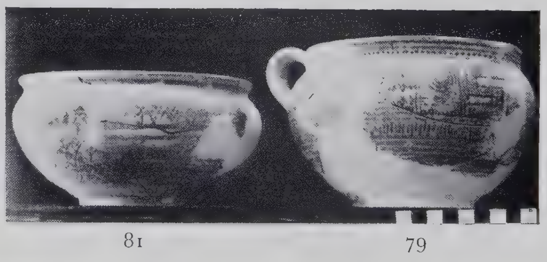
75 76



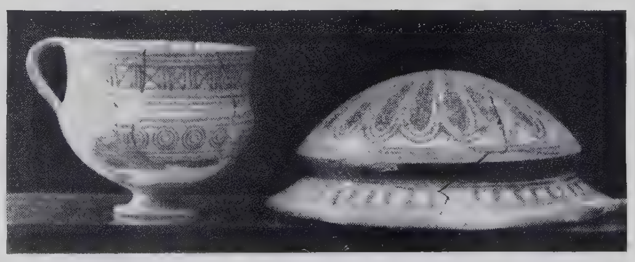
84 83



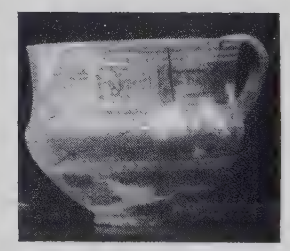
77 71



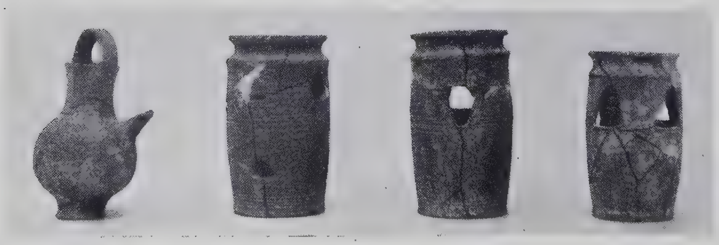
81 79



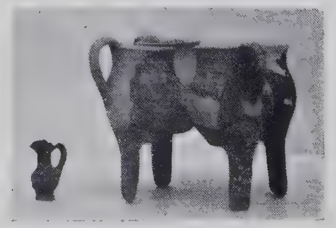
80 44



91

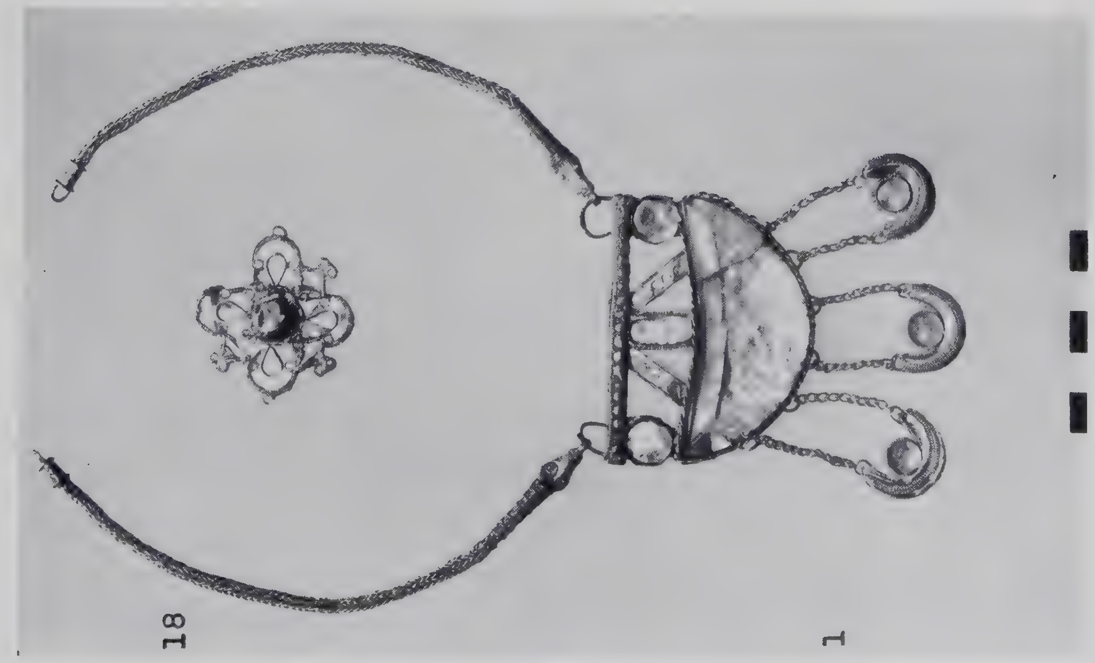


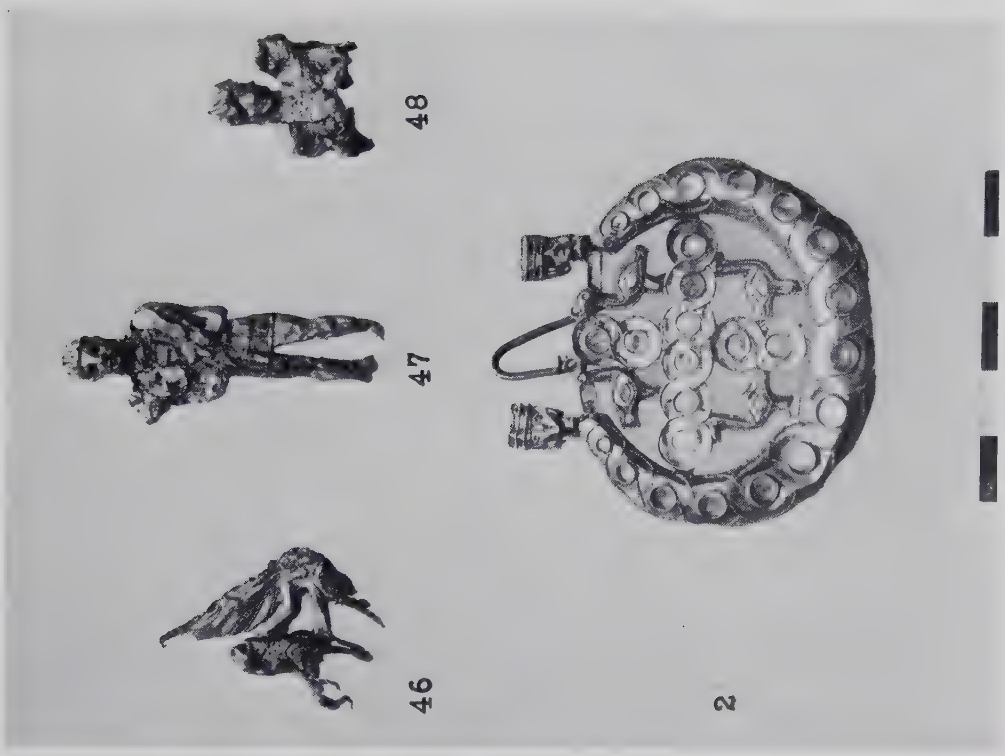
104 105 106 107



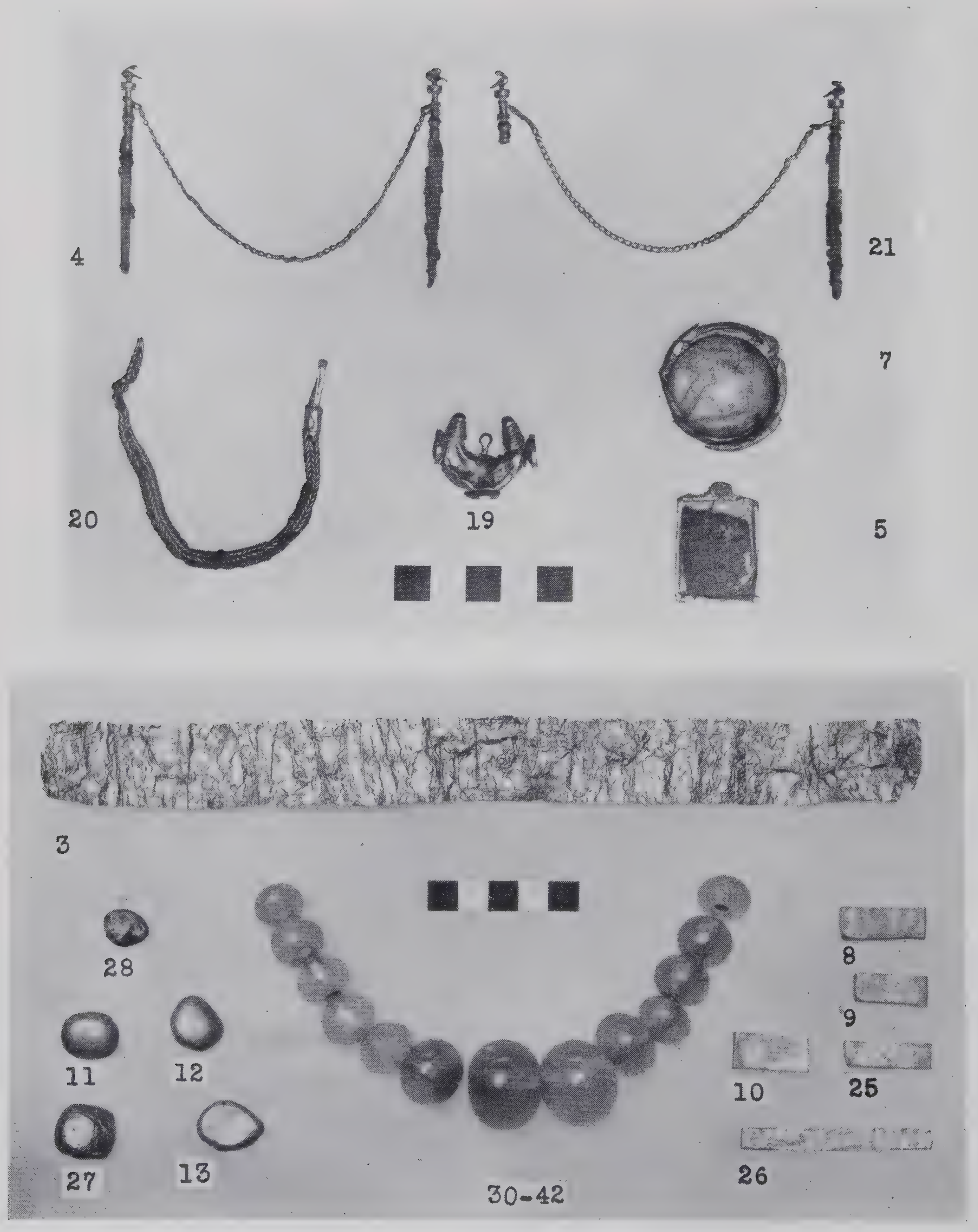
103 109

KHANIALE TEKKE TOMBS. POTTERY.

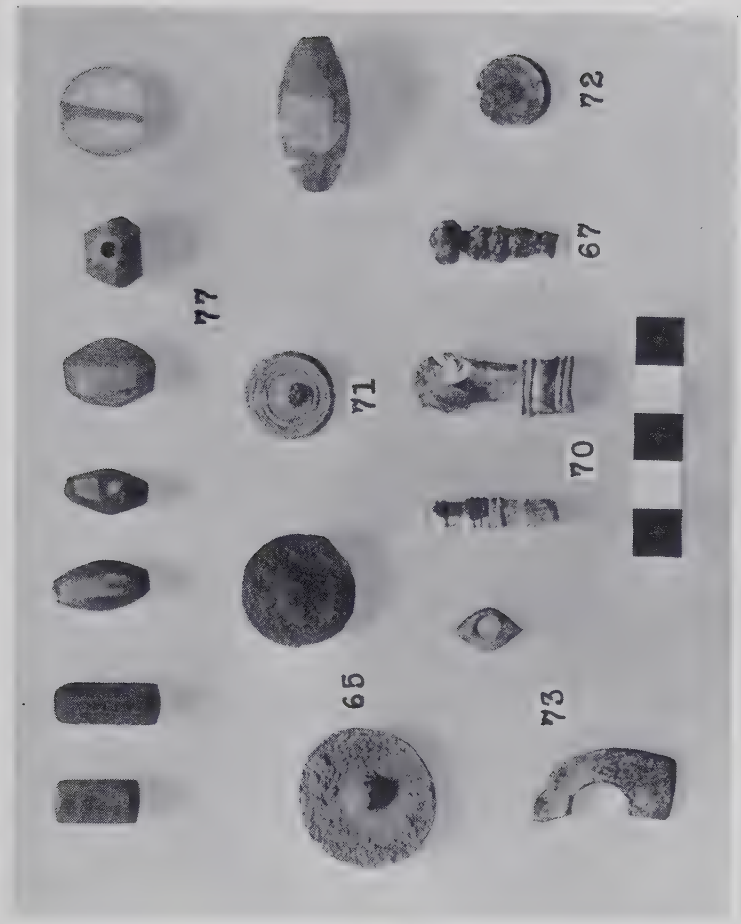


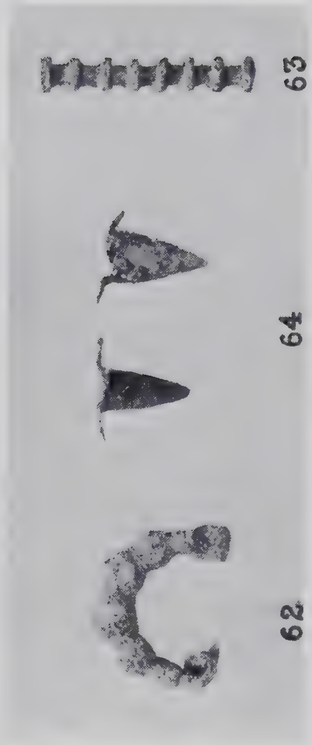


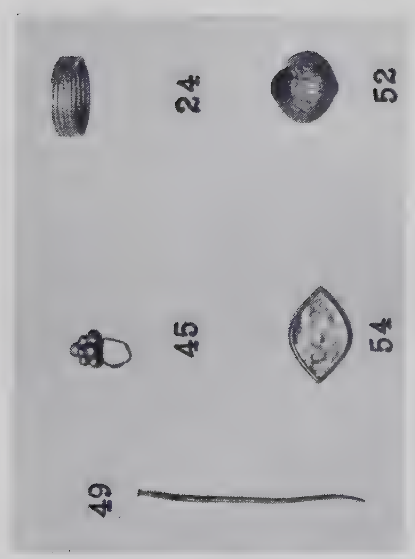
KHANIALE TEKKE TOMBS. JEWELLERY.

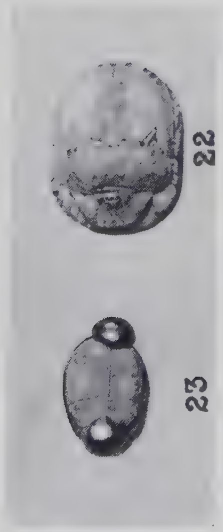

4
21
20
19
7
5
3
28
11
12
27
13
30-42
8
9
10
25
26

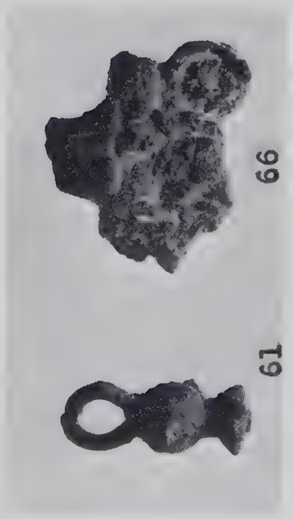
KHANIALE TEKKE TOMBS. JEWELLERY AND DUMPS AND BARS OF PRECIOUS METALS.


72
67
77
71
70
65
73

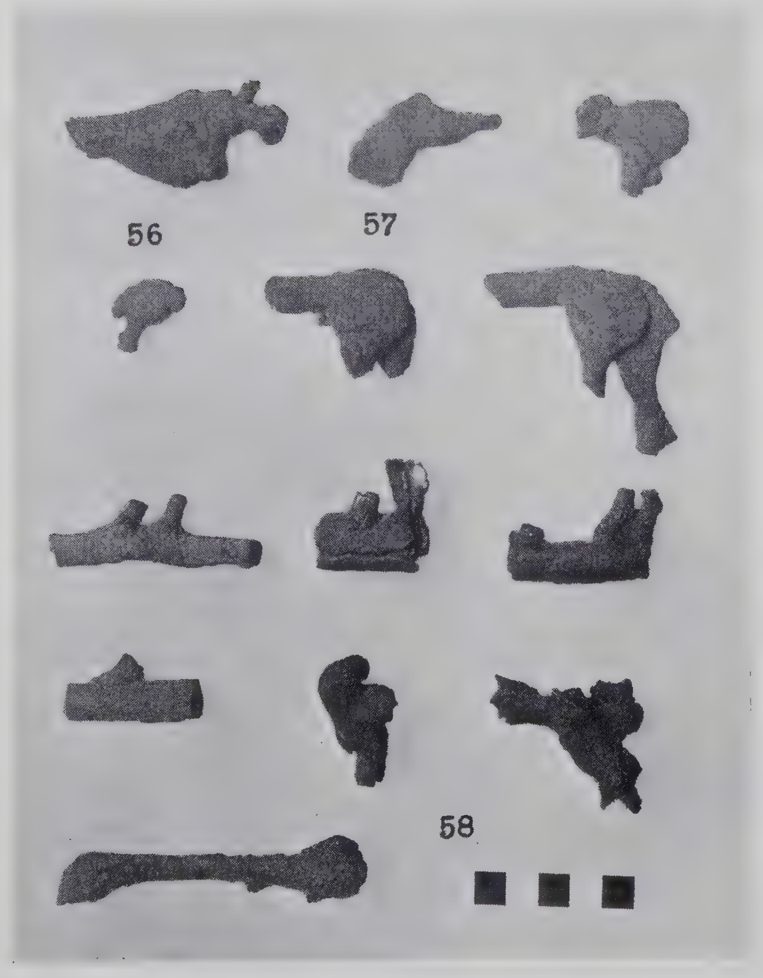


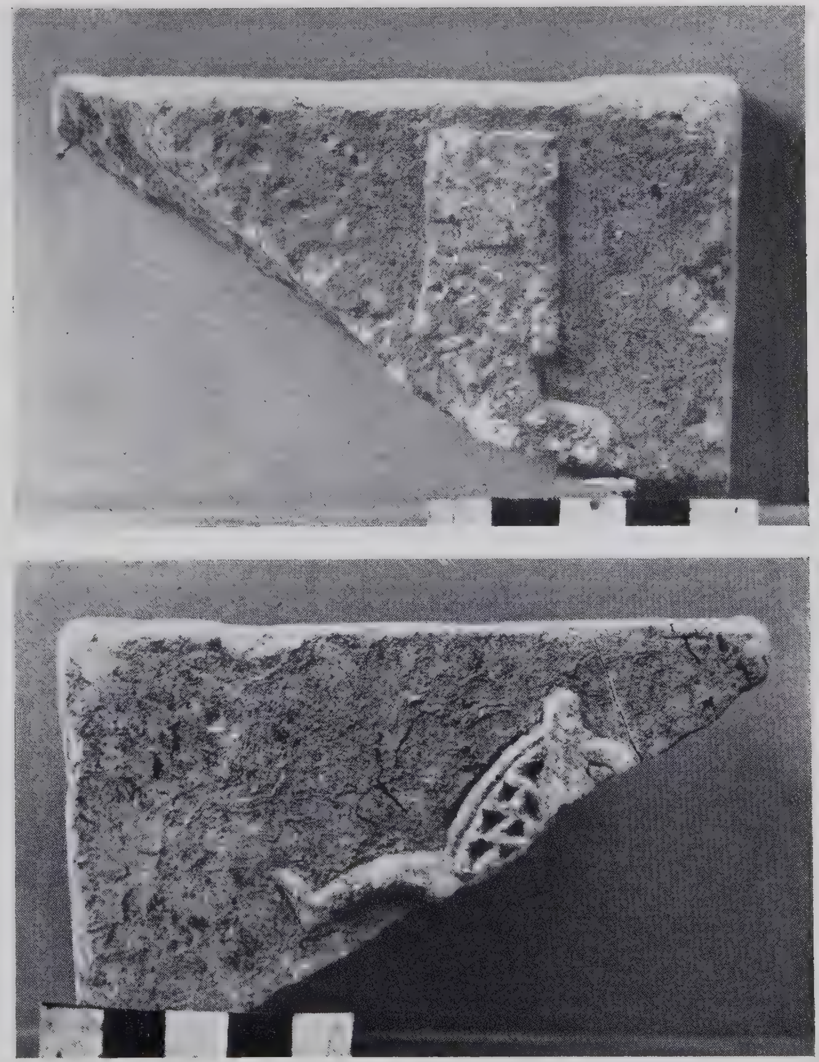

24
52
45
54
49





KHANIALE TEKKE TOMBS. SMALL OBJECTS.

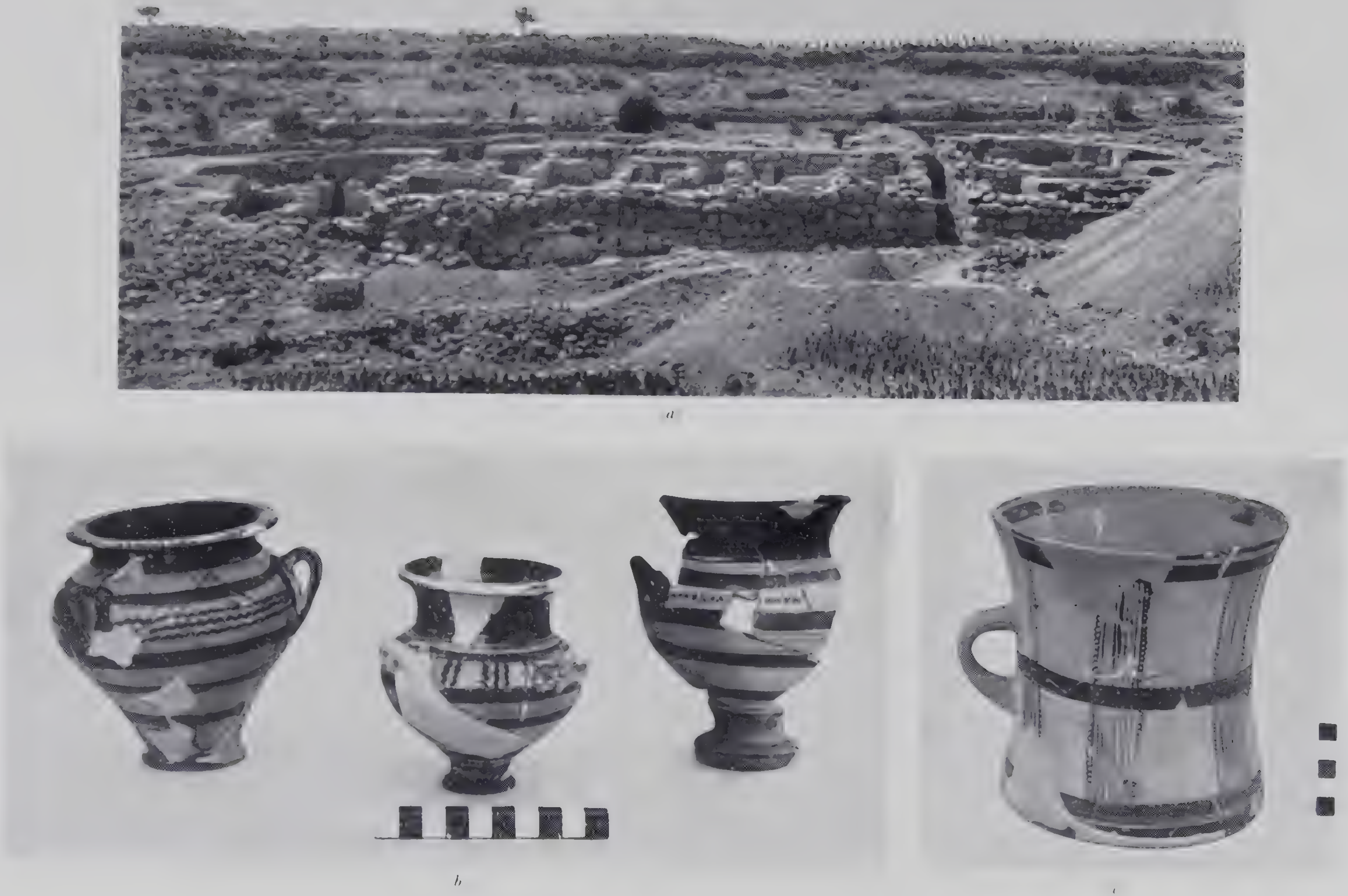




76

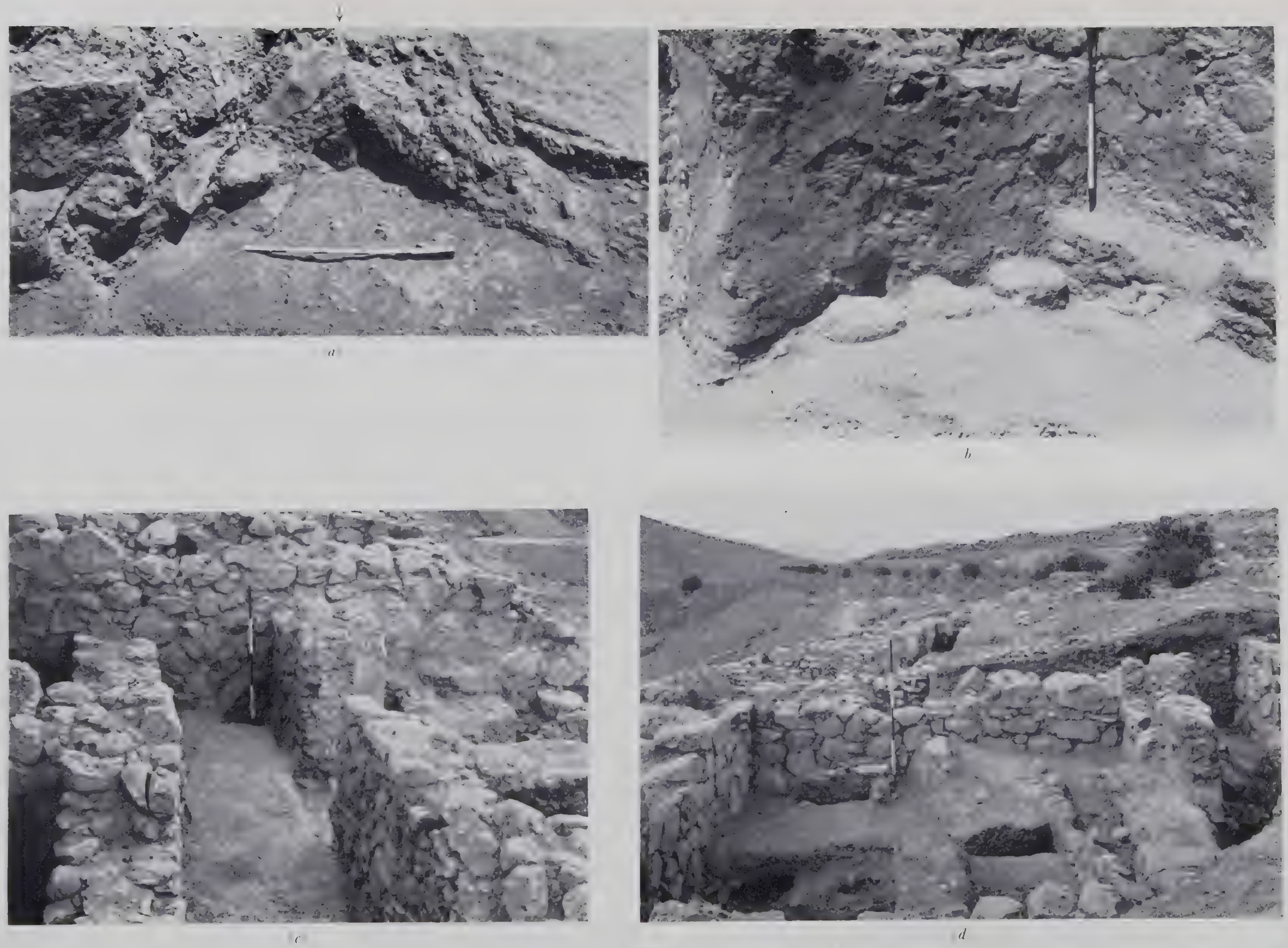
KHANIALE TEKKE TOMBS.

FRAGMENTS OF BRONZE FIGURINES (56, 57, 58 OF ‘SMALL FINDS’). *Kouskouras* RELIEF PLAQUE (‘SMALL FINDS’, 76).



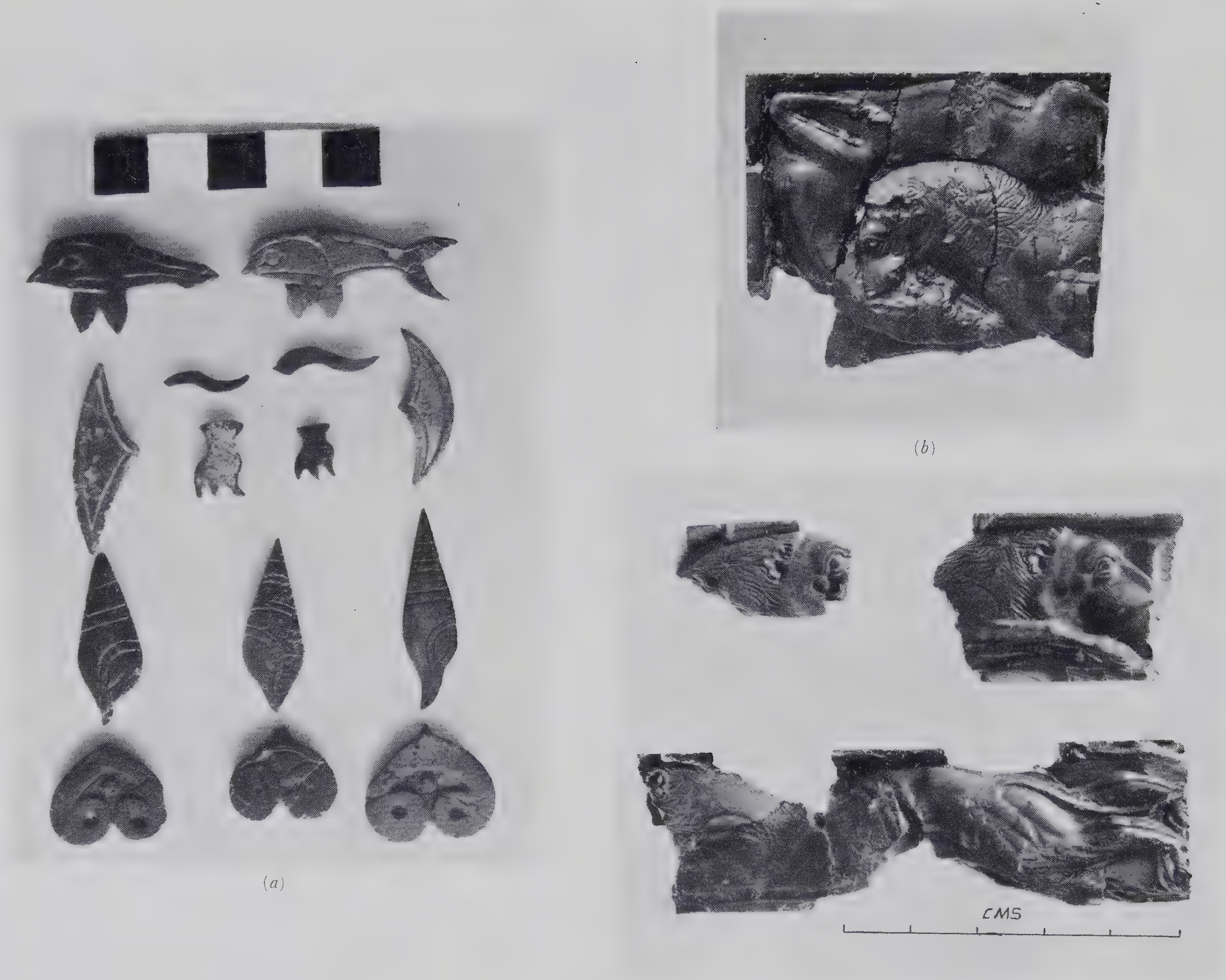
MYCENAE.

HOUSES. (*a*) House of Sphinxes, House of the Oil Merchant, House of Shields. HOUSE OF SPHINXES. (*b*) Piriform Jars L.H. IIIB. (*c*) Mug L.H. IIIB.



MYCENAE.

HOUSE OF SPHINXES. (a) Room 2, Charred Wooden Threshold. (b) Room 1, Crude Brick Bench with Clay Roundels and Bars. (c) Corridor, North End. HOUSE OF SHIELDS. (d) West Room from North.



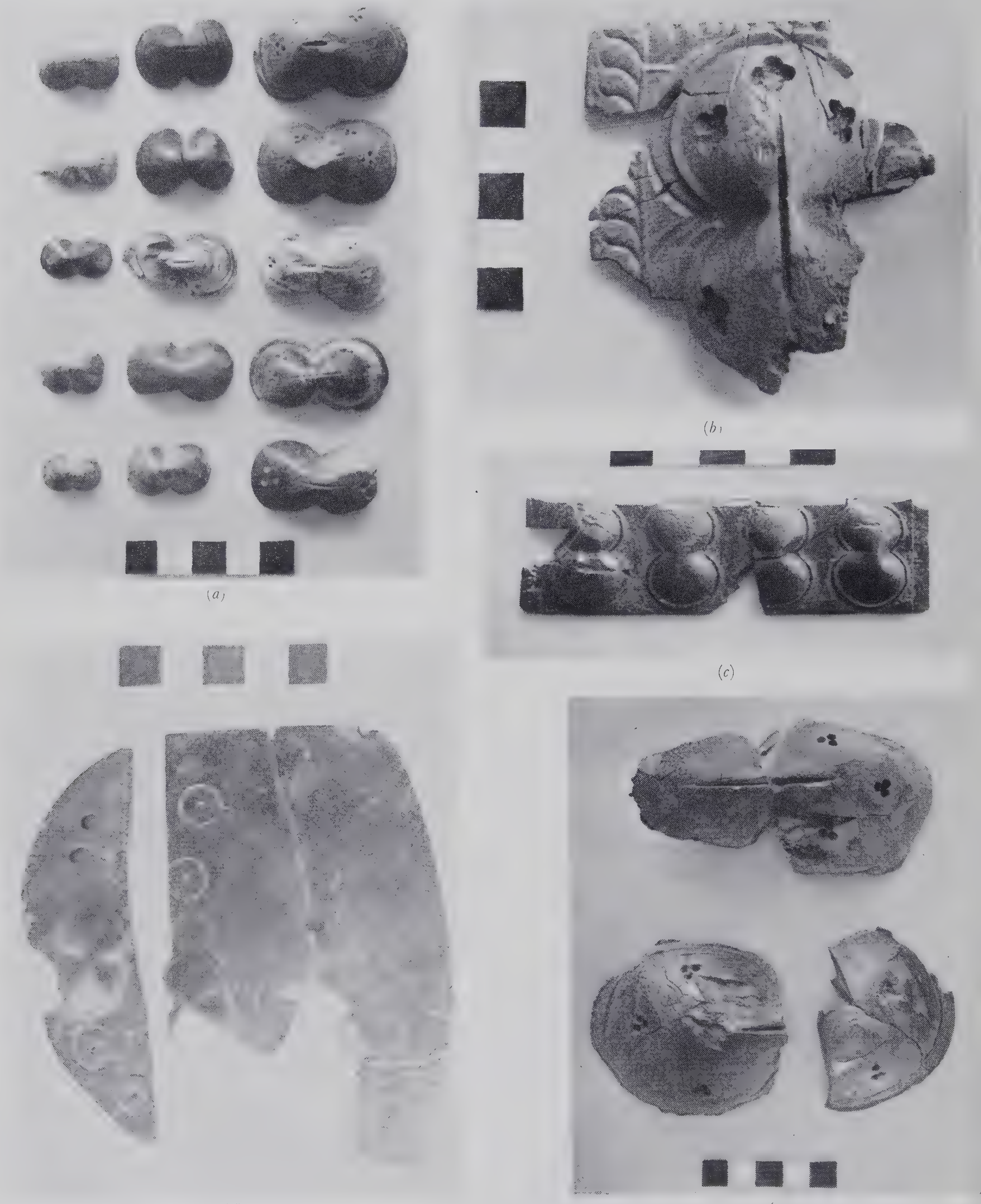
(a)

(b)

(c)

MYCENAE.

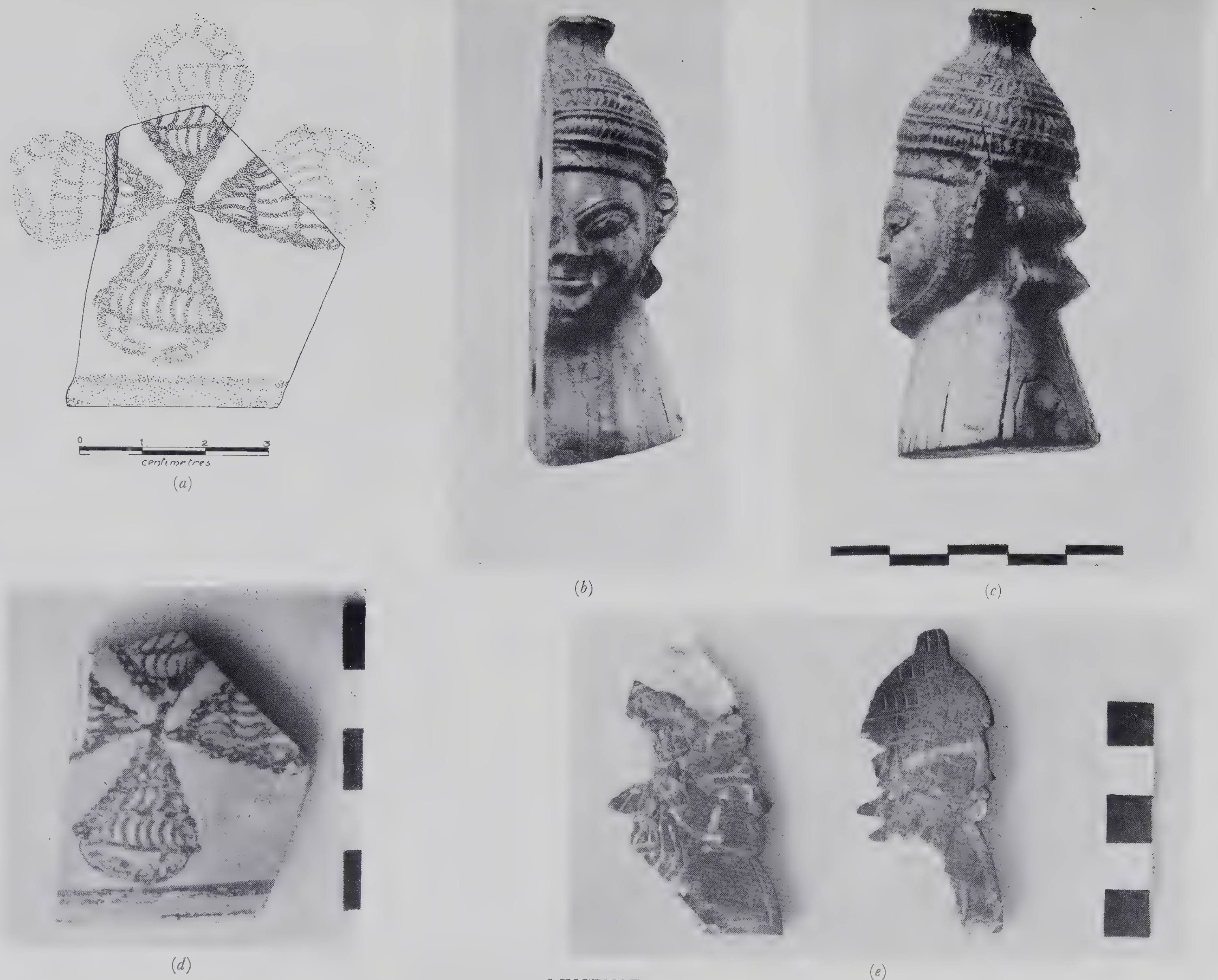
House of Shields. (*a*) Ivory Inlays. (*b*) Ivory Plaque, Lion and Calf, Casket Lid (?), Scale about 1:1. (*c*) Ivory Plaques, Running Lions, Sides of Casket (?).



(*a*) (*b*) (*c*) (*d*) (*e*)

MYCENAE.

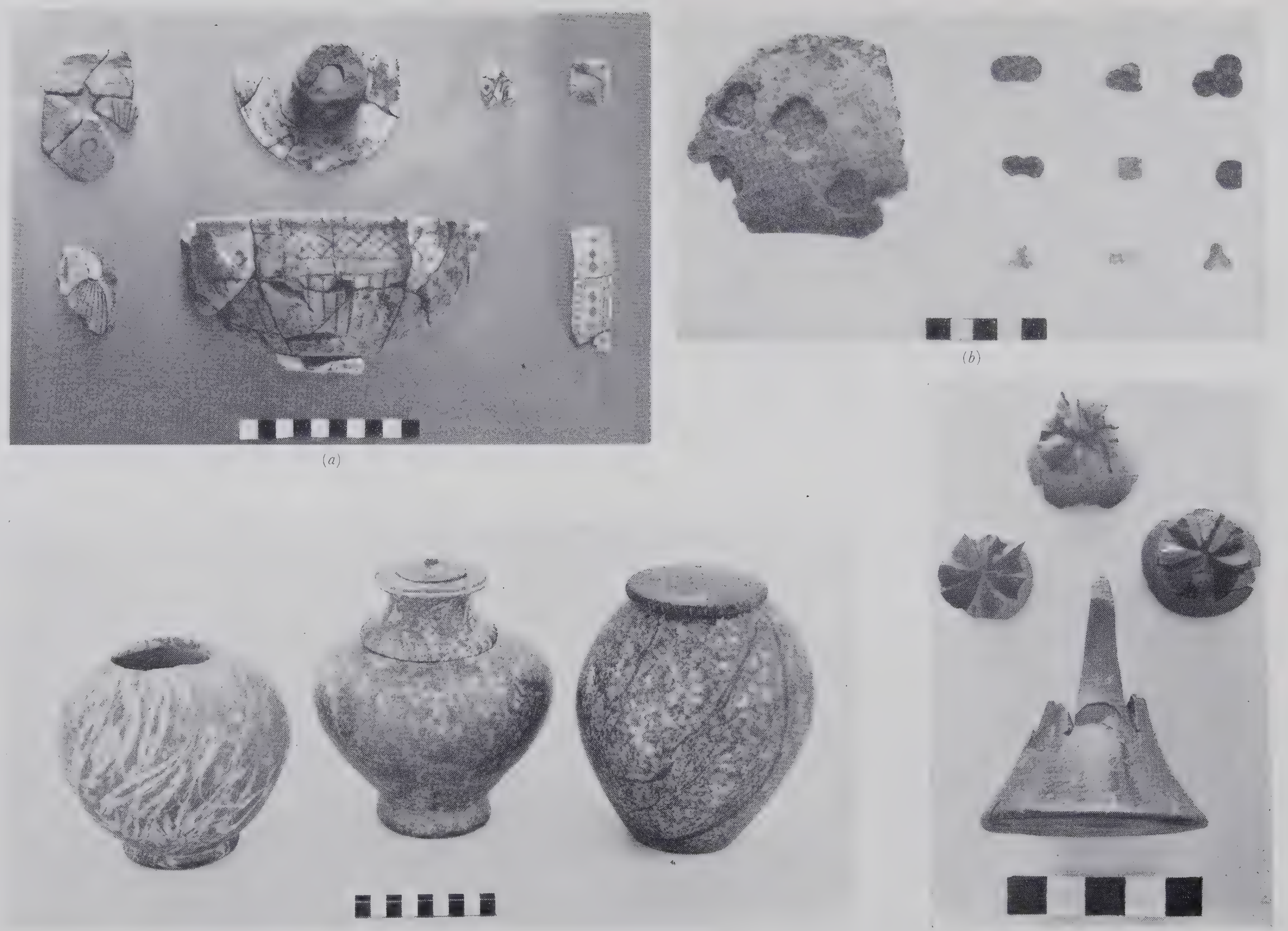
House of Shields. (*a*) Model Shields in Ivory. (*b*) Plaque with Shield, Casket Lid (?). (*c*) Plaque with Shields, Side of Casket (?). (*d*) Ivory Lid with Attached Shields. (*e*) Model Shields in Ivory.



(a) (b) (c) (d) (e)

MYCENAE.

HOUSE OF SHIELDS. (a) (d) Sherd with Design of Boar's Tusk Helmets, L.H. IIIB. (b) (c) Head of Warrior Wearing Boar's Tusk Helmet, in Ivory, Front and Profile. (e) Ivory Inlays of Heads of Warriors with Boar's Tusk Helmets.



(a)

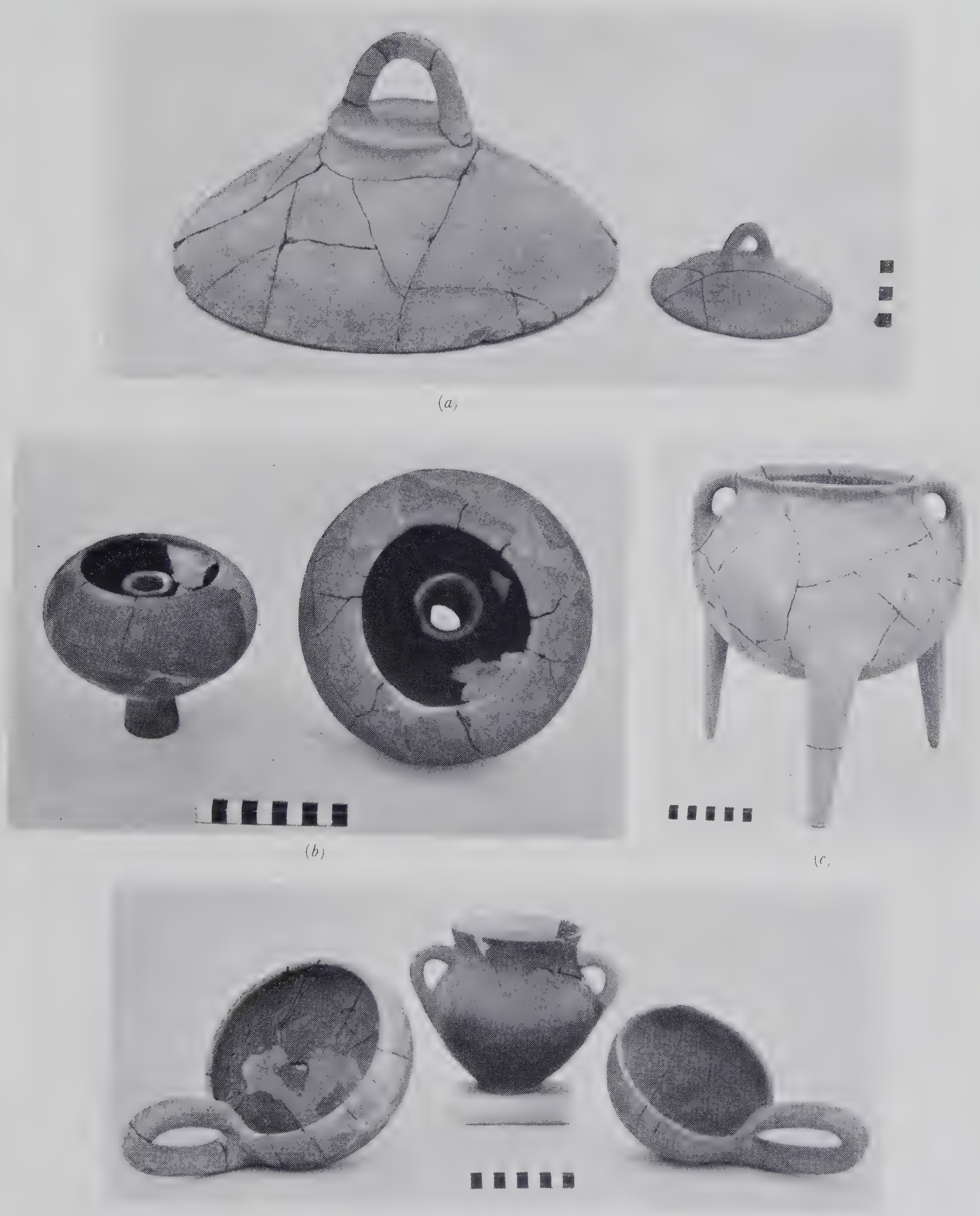
(b)

(c)

(d)

MYCENAE.

HOUSE OF SHIELDS. (*a*) Faience. (*b*) Stone Bowl (Fragment) with Stone Inlays. (*c*) Stone Vases. (*d*) 'Hoofs' in Ivory.



(a)

(b)

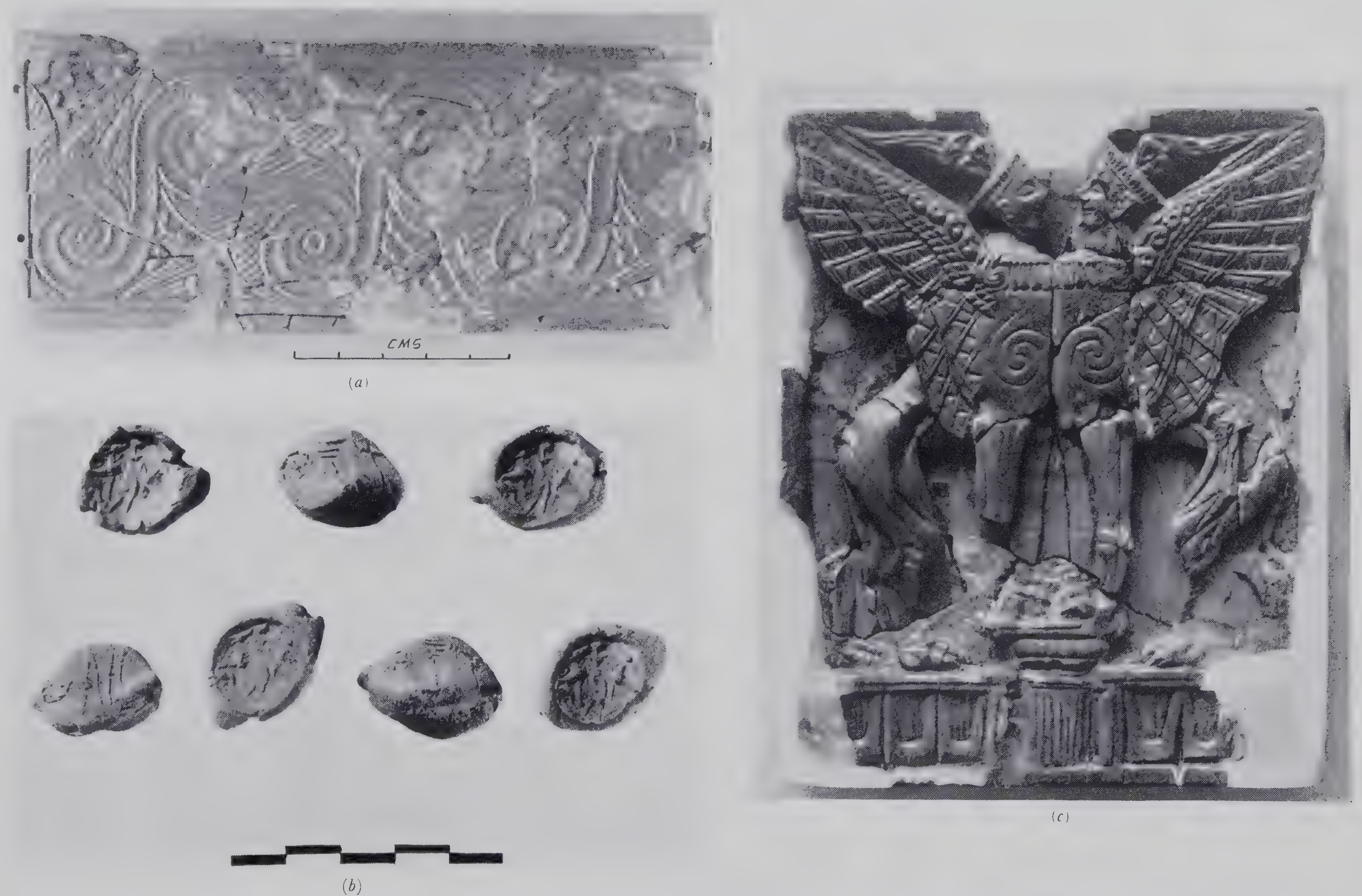
(c)

(d)

MYCENAE.

HOUSE OF SPHINXES. DOMESTIC POTTERY FROM ROOM 1.

(*a*) Lids. (*b*) Funnels. (*c*) Tripod Cooking Vessel. (*d*) Ladles and Jar.



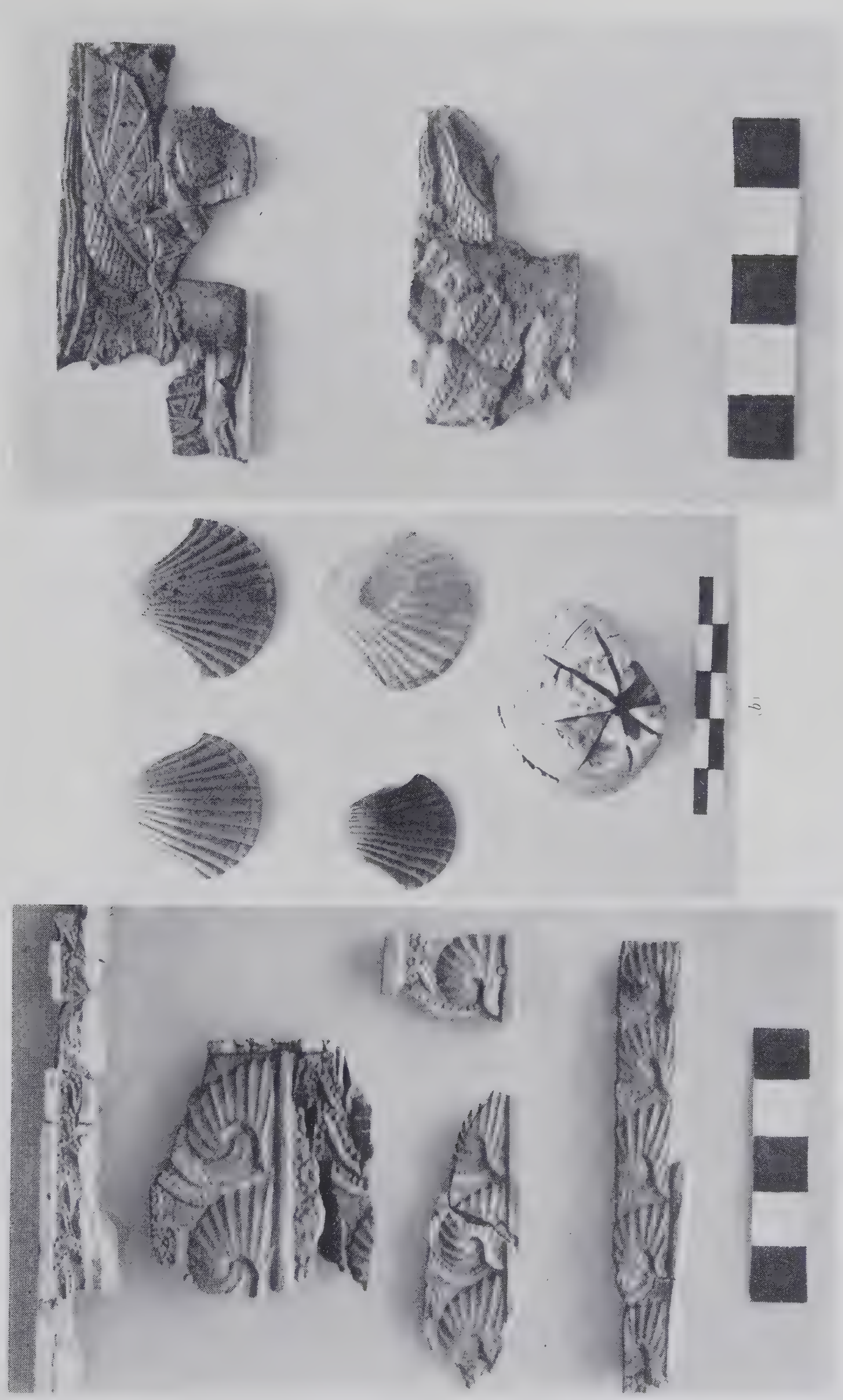
(a)

(b)

(c)

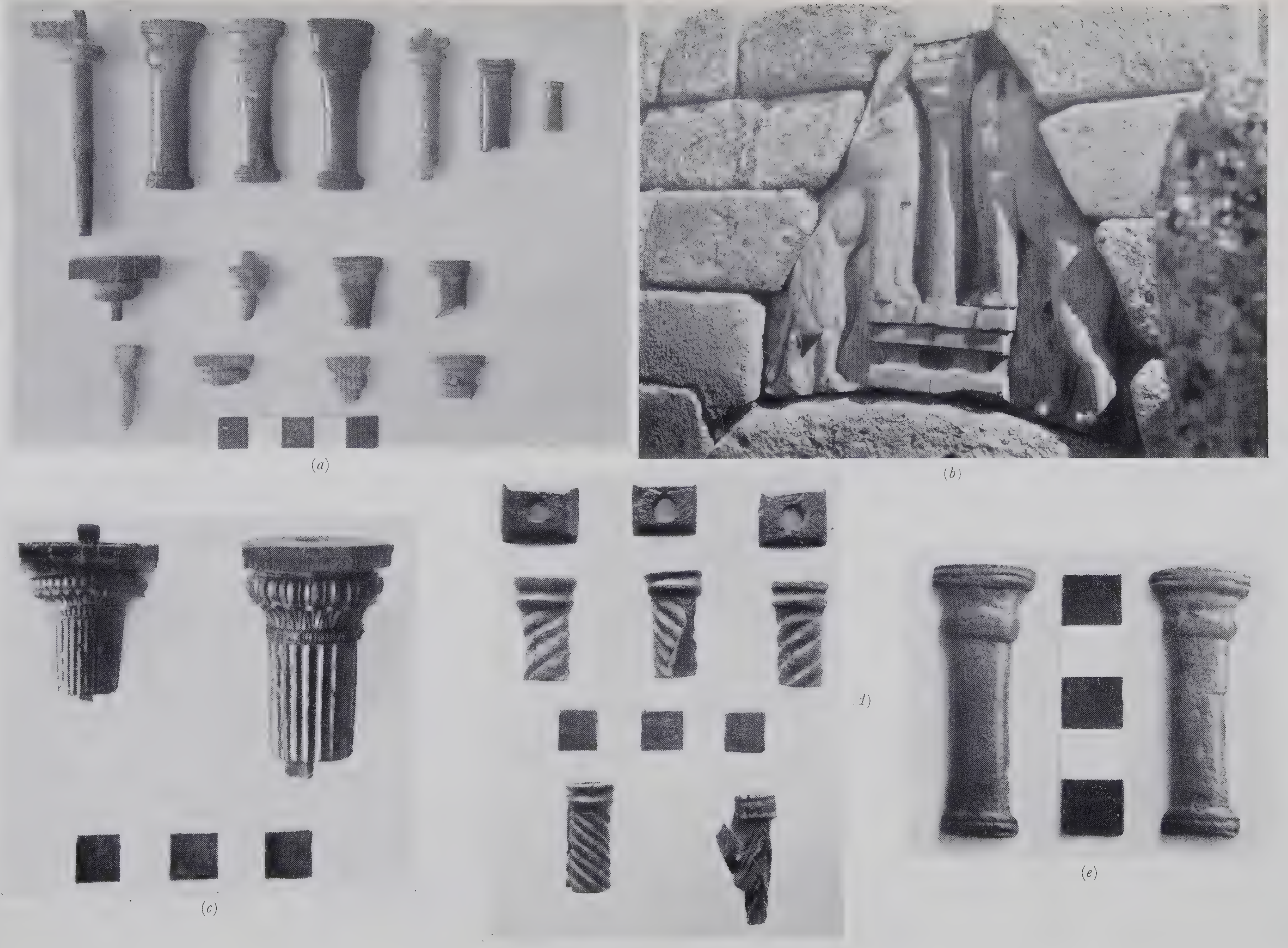
MYCENAE.

House of Sphinxes. (a) Lotus and Spirals, Ivory Plaque. (b) Inscribed Clay Seal Impressions from Doorway of Room 1. (c) Confronted Sphinxes, Ivory Plaque, Scale about 6 : 5.



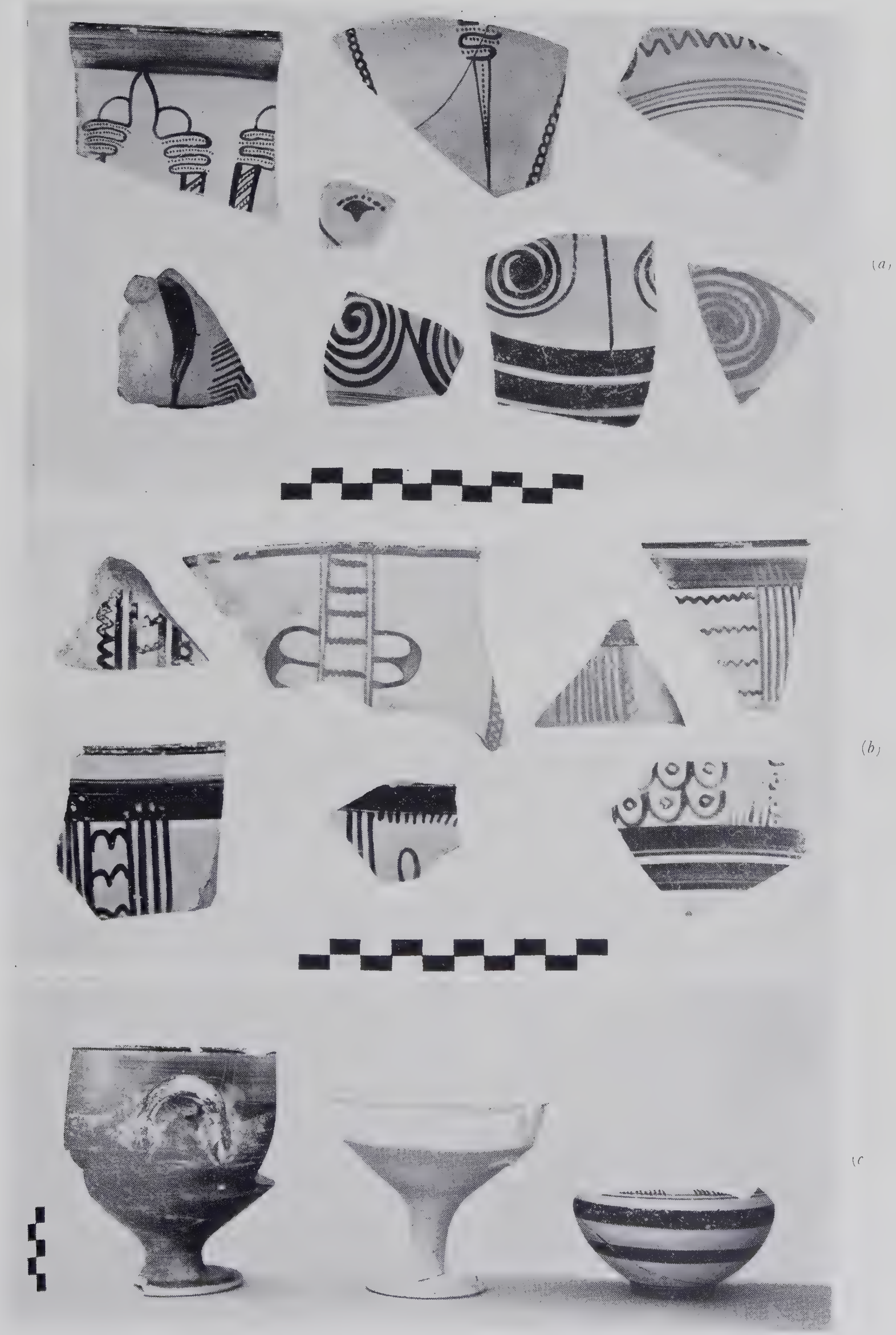
MYCENAE.

HOUSE OF SPHINXES (a) Argonauts, Ivory Plaque. (b) Cockle Shells and 'Hoof', Ivory. (c) Couchant Sphinxes, Ivory Plaques from Sides of Casket (?).



MYCENAE.

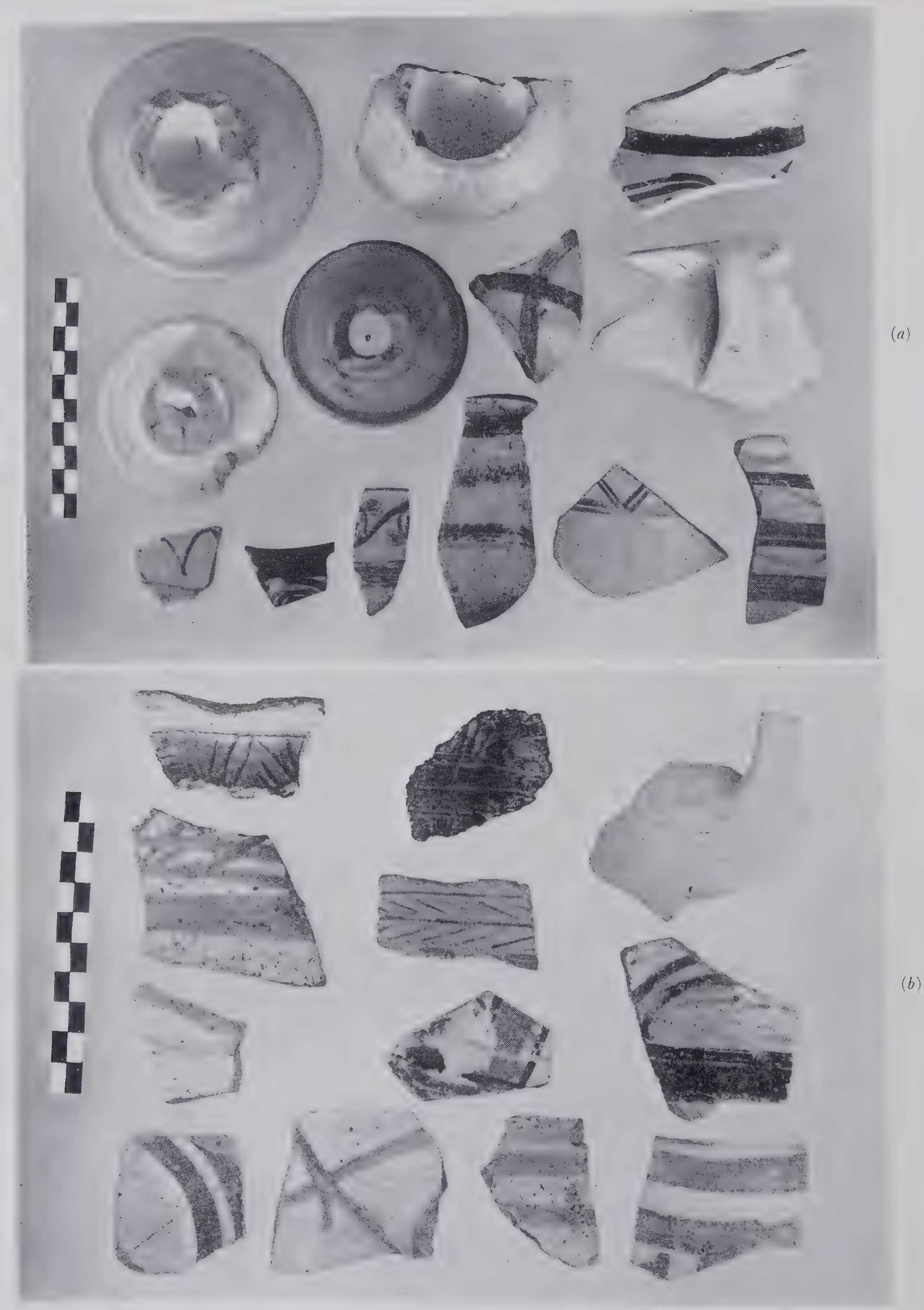
House of Shields. (*a*) Model Half Columns, Ivory. (*c*) Model Fluted Columns, Ivory. (*d*) Model Spiral Columns, Ivory; Model Wood Column with Treasury of Atreus Pattern. (*e*) Model Half Columns, Ivory. Lion Gate. (*b*) Relief of Lions with Column.



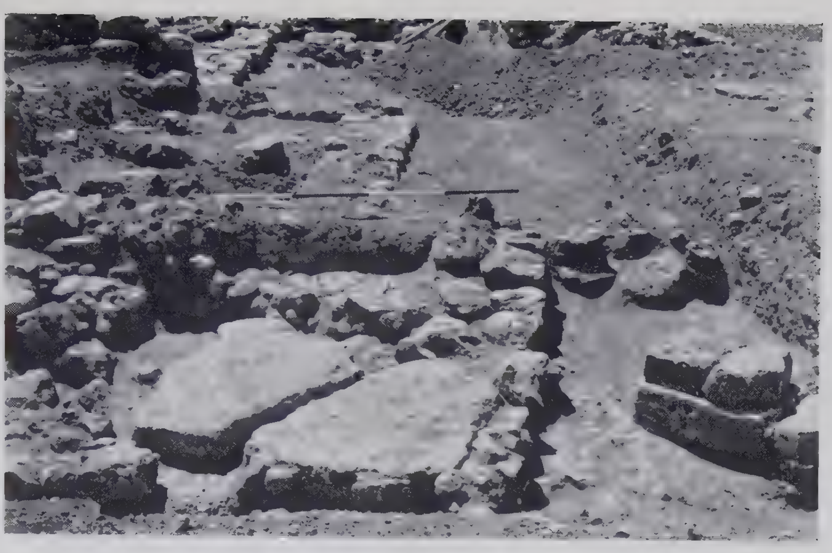
MYCENAE.

GRAVE CIRCLE. POTTERY, L.H. IIIB FROM SUPPORTING WALL.

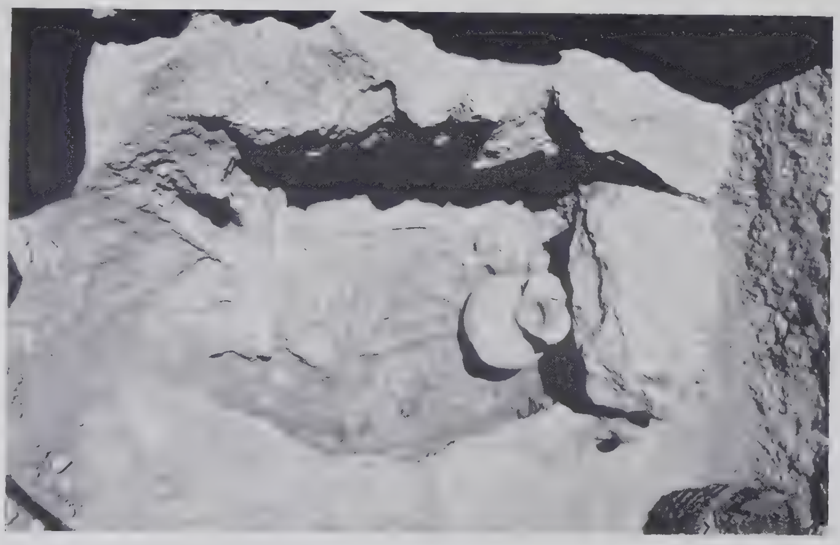
(*a*) Fragments of Kylikes, etc. (*b*) Fragments of Deep Bowls, etc. (*c*) Deep Bowl, Kylix, Stirrup Jar (?).



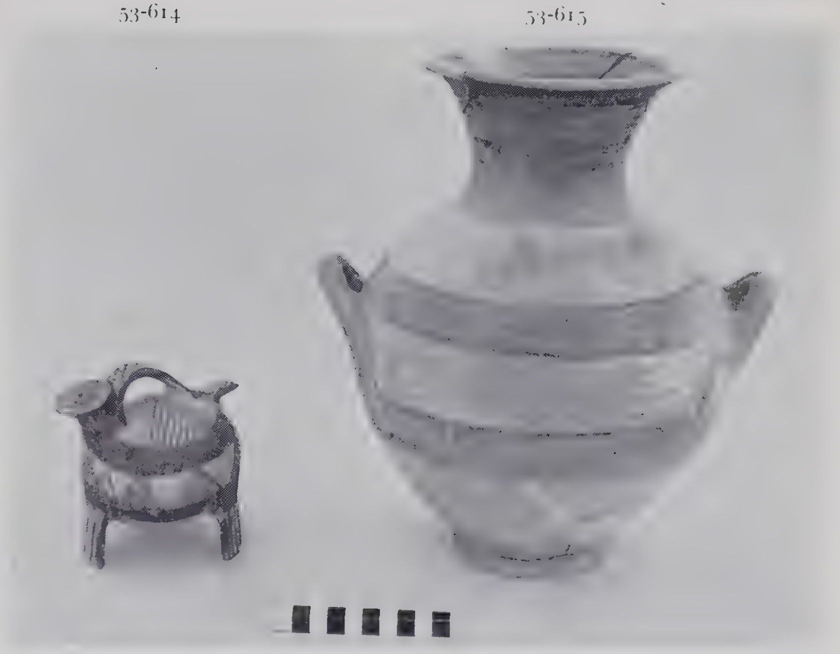
MYCENAE.
MIDDLE HELLADIC (?) WALL. (*a*) (*b*) Middle Helladic Pottery: Minyan, Mattpainted, and Transitional Wares.



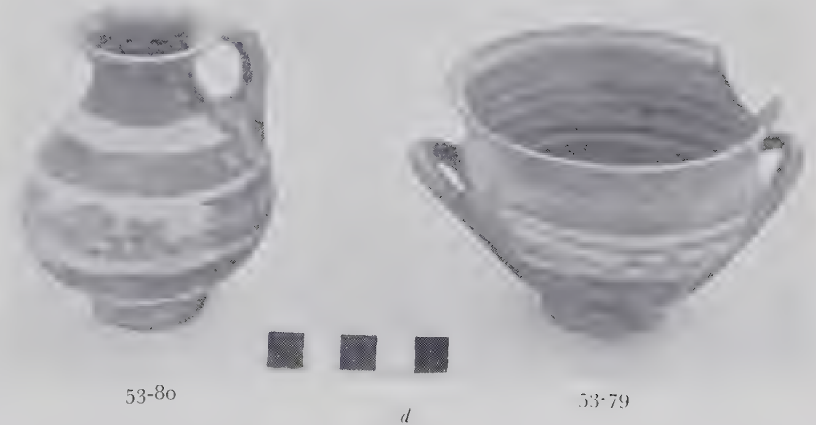
a



(*b*)

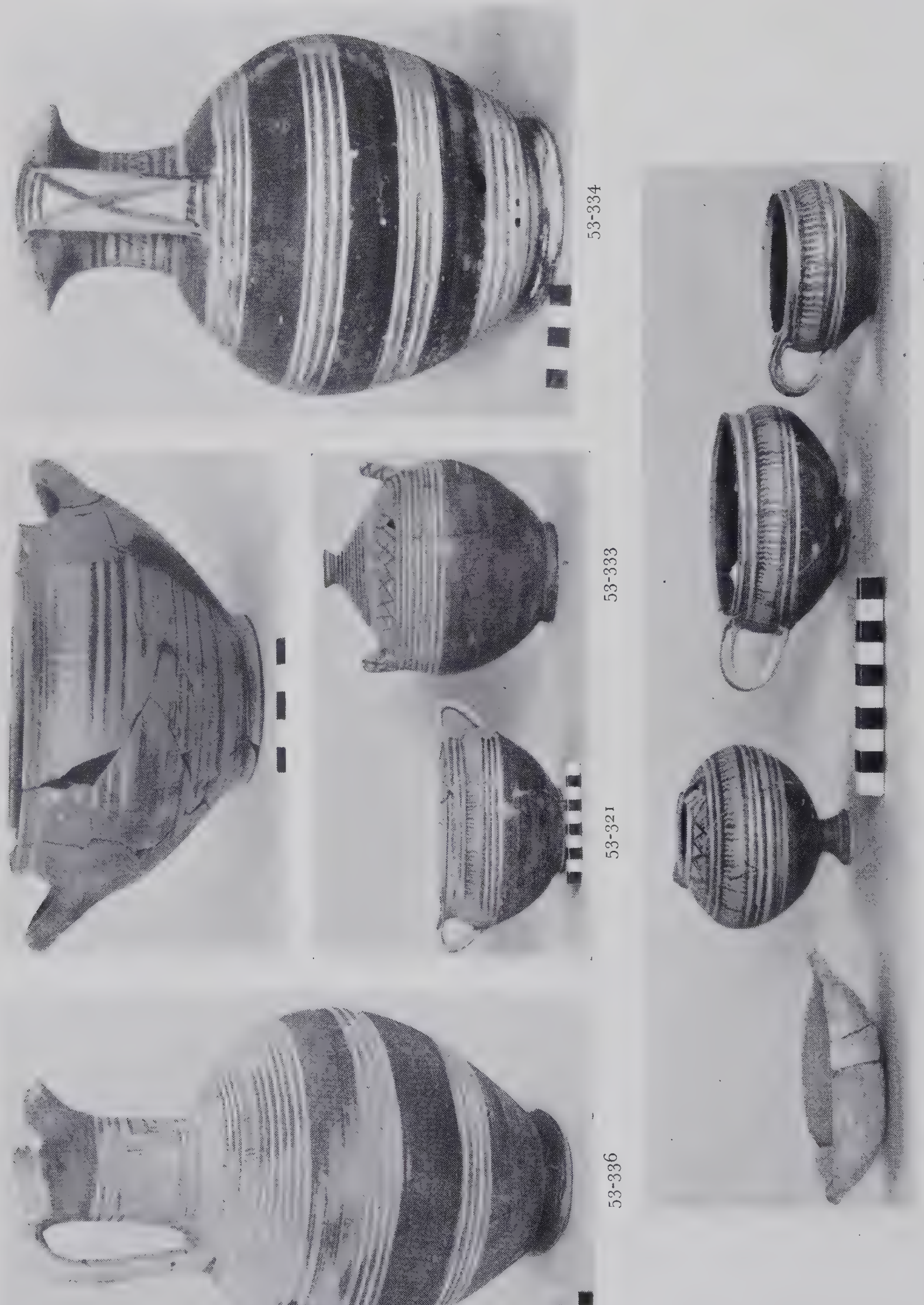

53-614
53-615

c

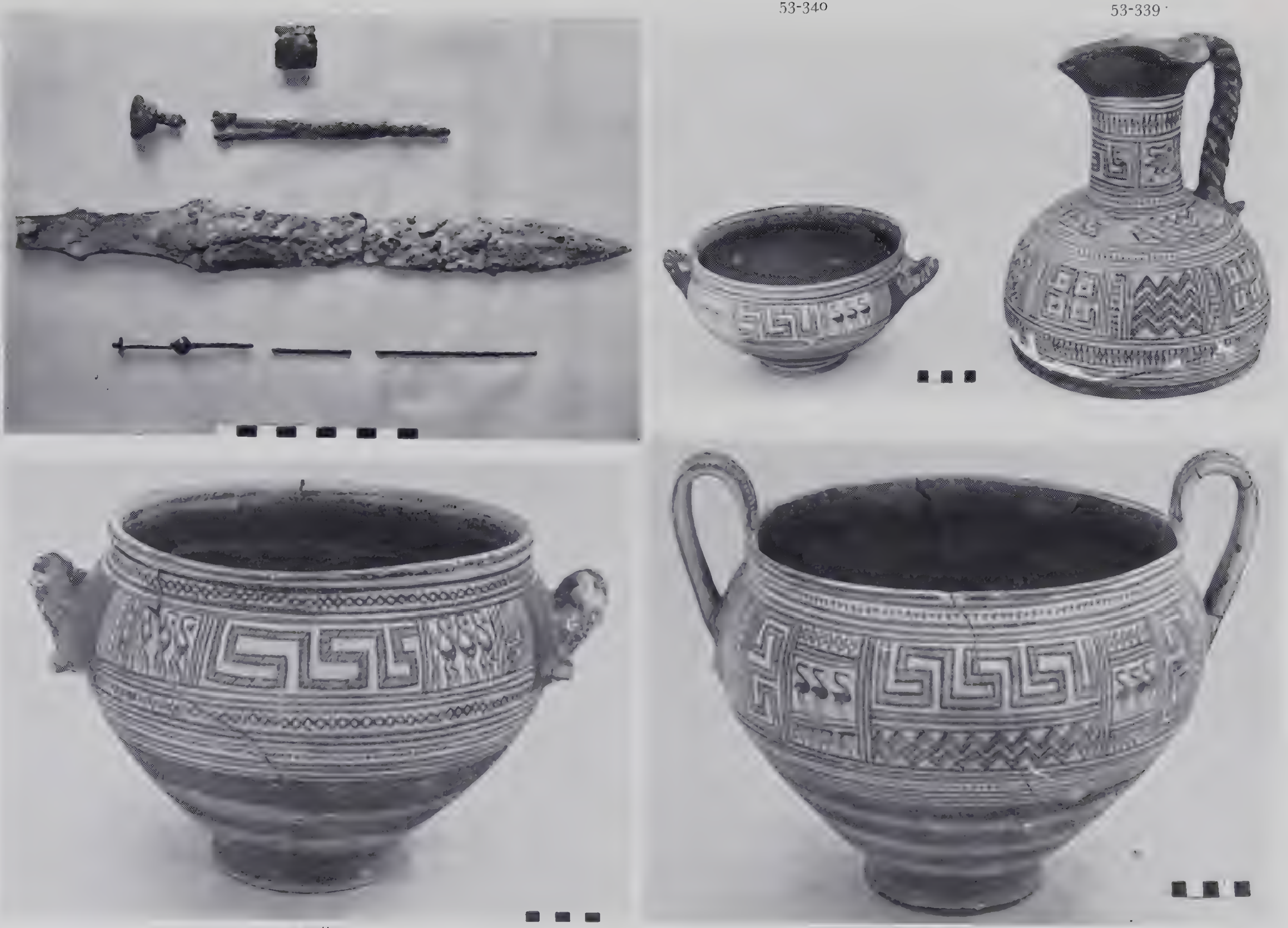


d

MYCENAE. (*a*) VIEW OF GEOMETRIC CIST TOMB AND L.H. IIIC CIST TOMB. (*b*) PROTOGEOMETRIC TOMB WITH OBJECTS *in situ*. (*c*) VASES FROM PROTOGEOMETRIC TOMB. (*d*) VASES FROM L.H. IIIC TOMB.

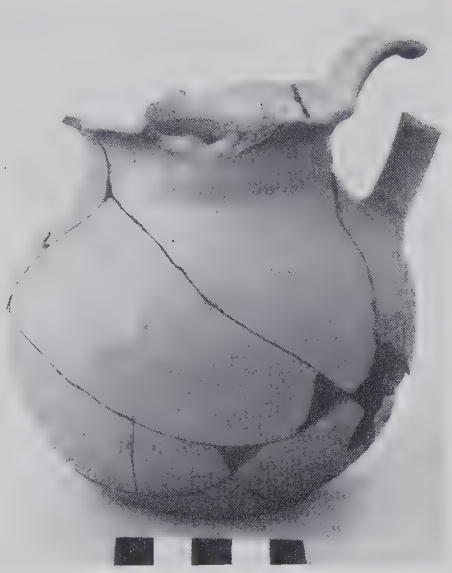

53-334
53-326
53-333
53-321
53-336
53-325
53-322
53-331
53-327

MYCENAE. Vases from Geometric Cist Tomb. (336 from Inside; Rest from Outside).

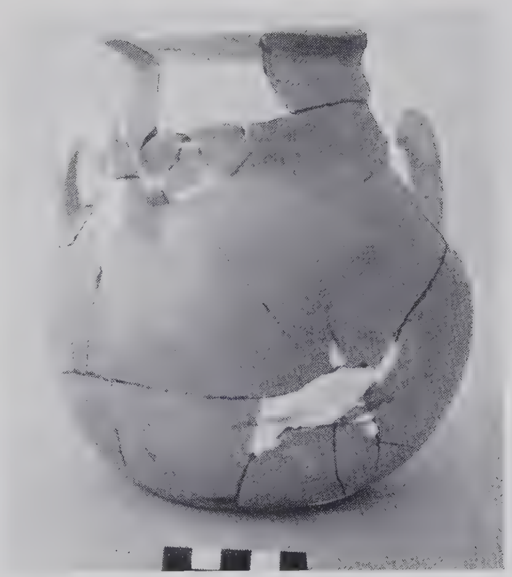

53-621
53-632
53-125
53-636
53-340
53-339
53-338
53-337

MYCENAE. METAL OBJECTS AND VASES FROM INSIDE GEOMETRIC CIST TOMB.

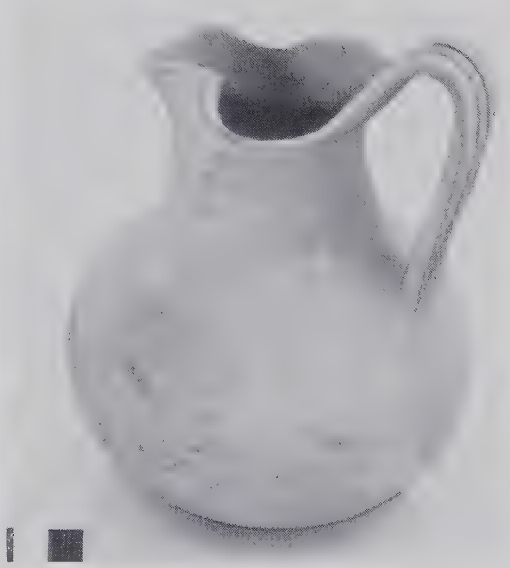
53-328

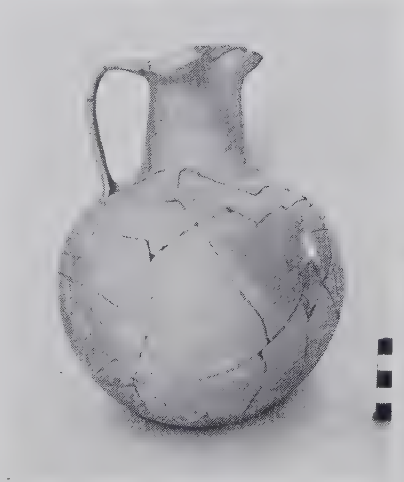


53-330

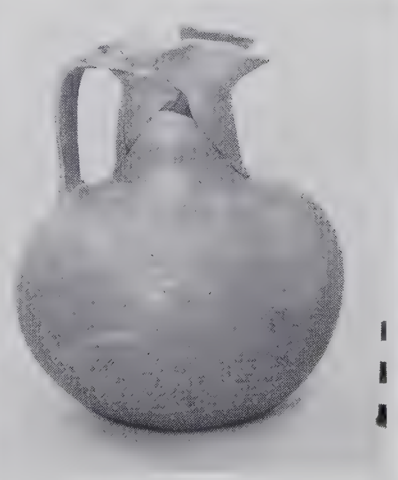


53-335

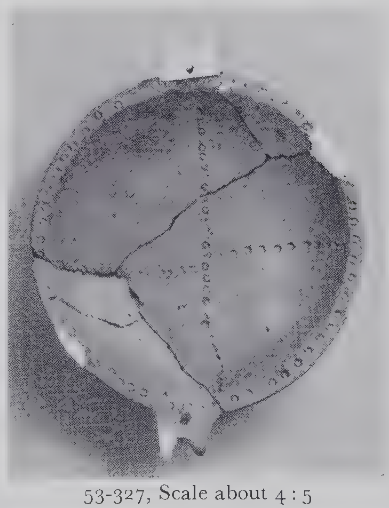




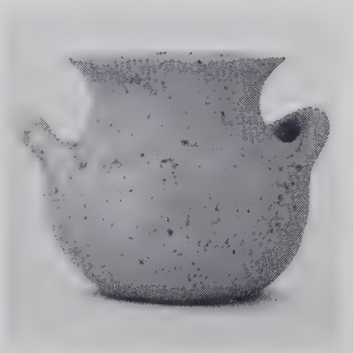
53-332



53-329

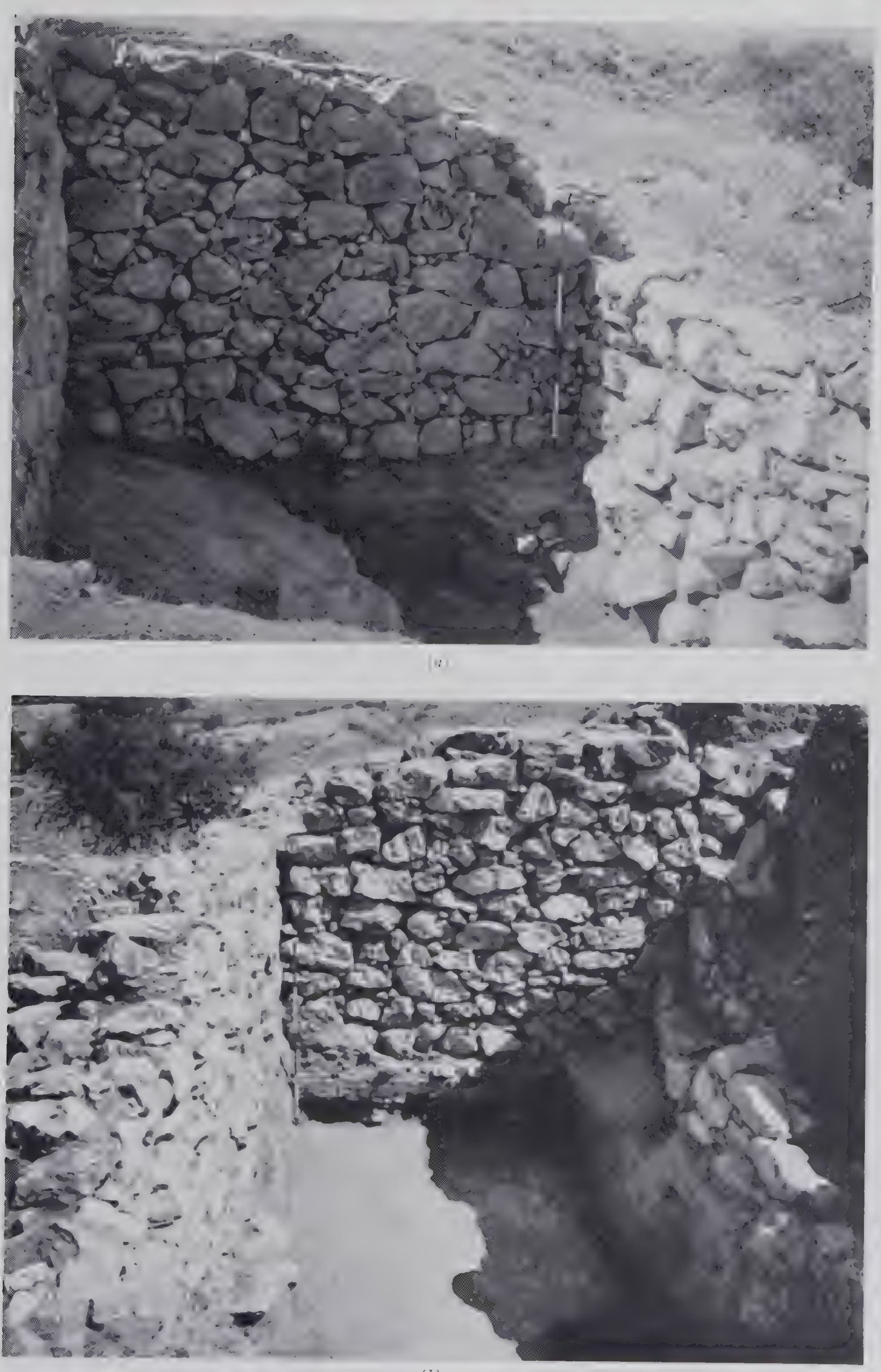


53-327, Scale about 4 : 5



39-262 Scale, about 1 : 2

MYCENAE. 335 FROM GEOMETRIC PITHOS BURIAL. 39-262 FROM PITHOS BURIAL SOUTH OF PERSEIA FOUNTAIN HOUSE. REMAINDER FROM ABOVE GEOMETRIC CIST BURIAL.

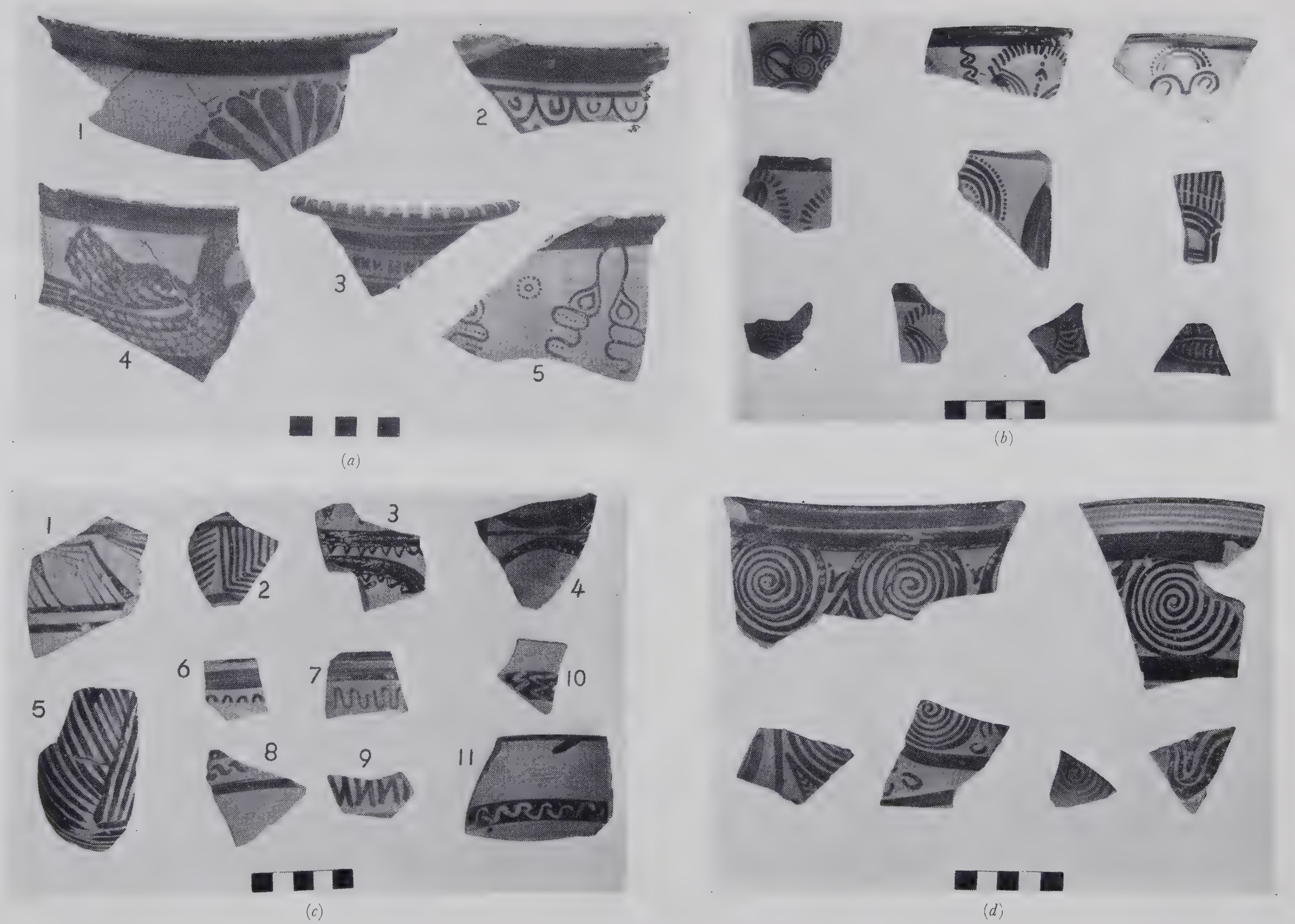


(a)

(b)

MYCENAE.

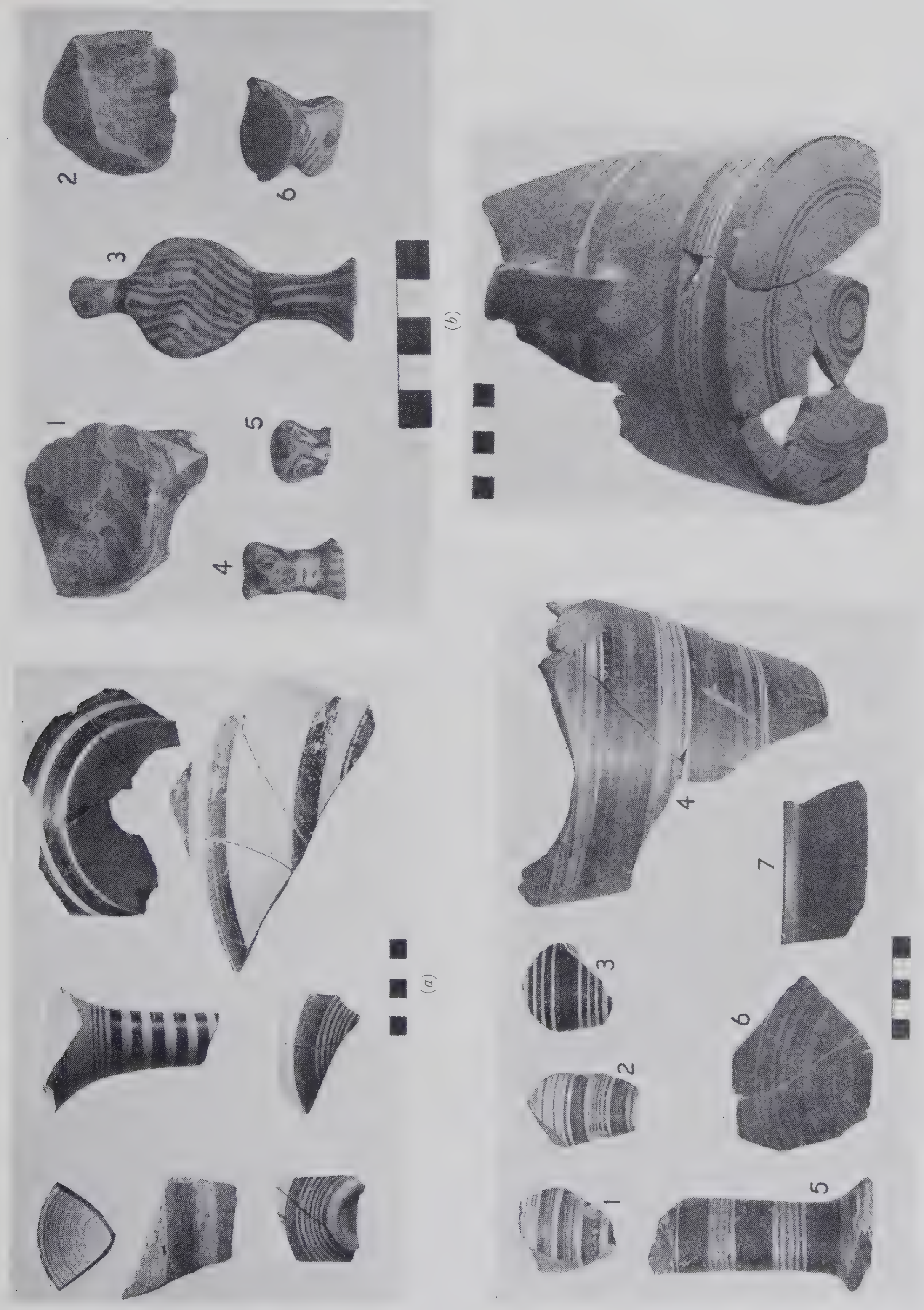
Cyclopean Terrace Building. (*a*) North Room from North. (*b*) South Room from South.


1
2
3
4
5
1
2
3
4
5
6
7
8
9
10
11

(a) (b) (c) (d)

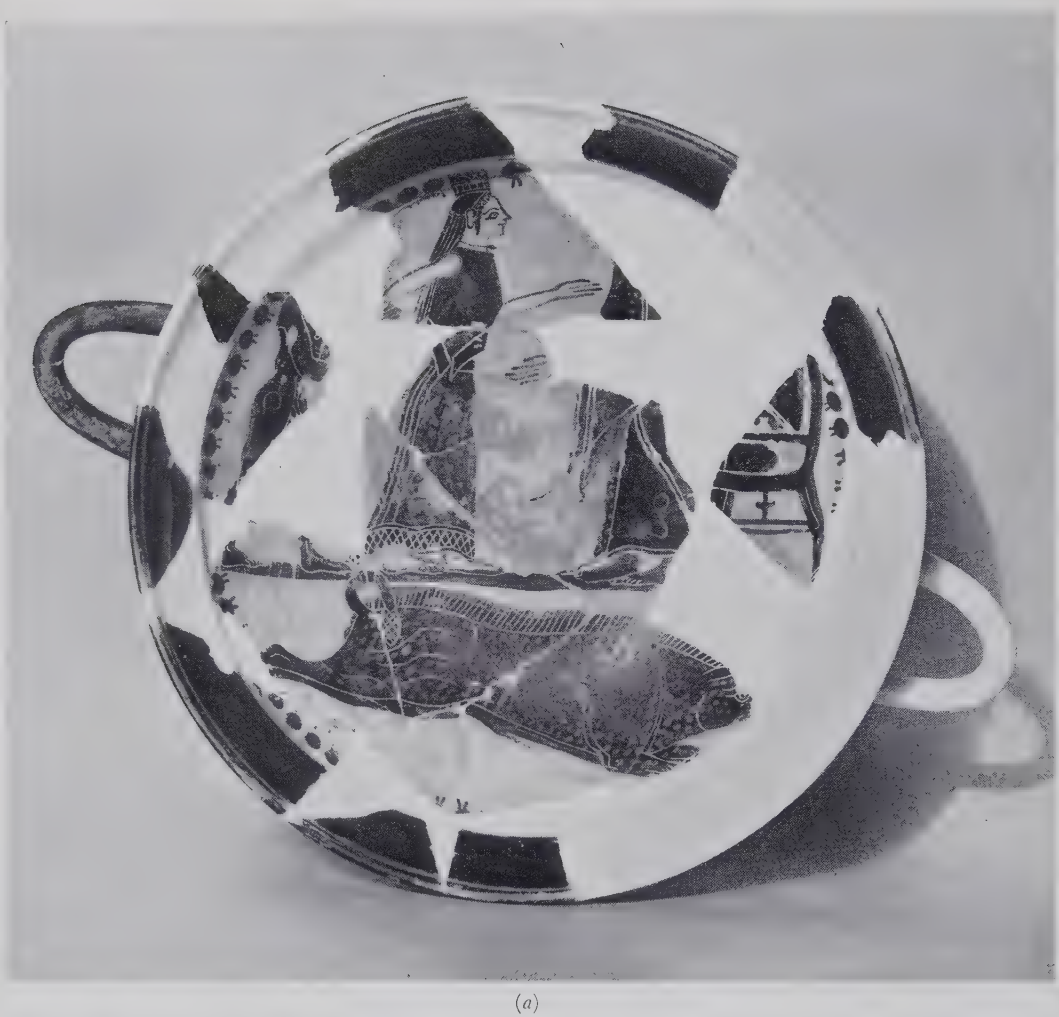
MYCENAE.

CYCLOPEAN TERRACE BUILDING. (a) Painted Ware, Unusual Sherds. (b) Painted Ware, Flower Patterns. (c) Painted Ware, Typical General Sherds. (d) Painted Ware, Spirals.

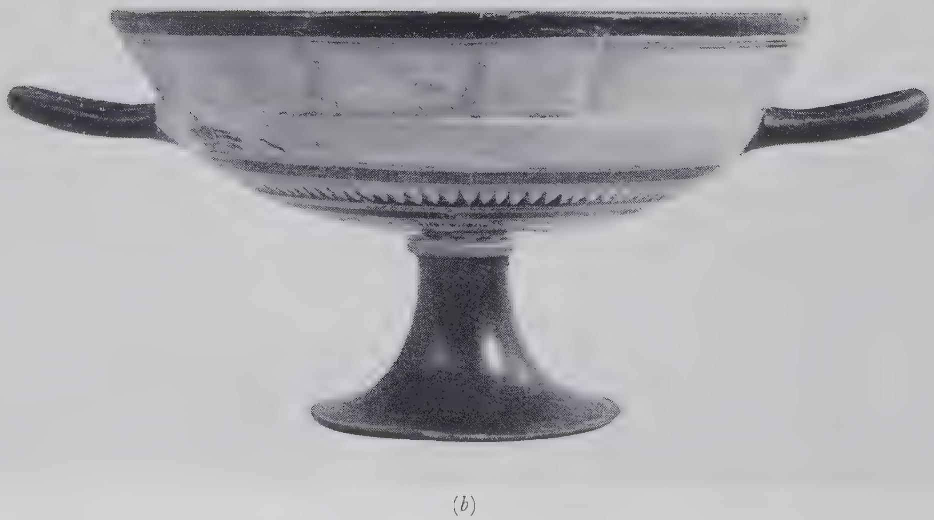

(a)
(b)
1
2
3
4
5
6
(c)
1
2
3
4
5
6
7
(d)

MYCENAE.

Cyclopean Terrace Building. (*a*) Painted Ware, Linear Decoration. (*b*) Terracotta Figurines. (*c*) Monochrome Ware and Derivatives. (*d*) Stippled Mug.



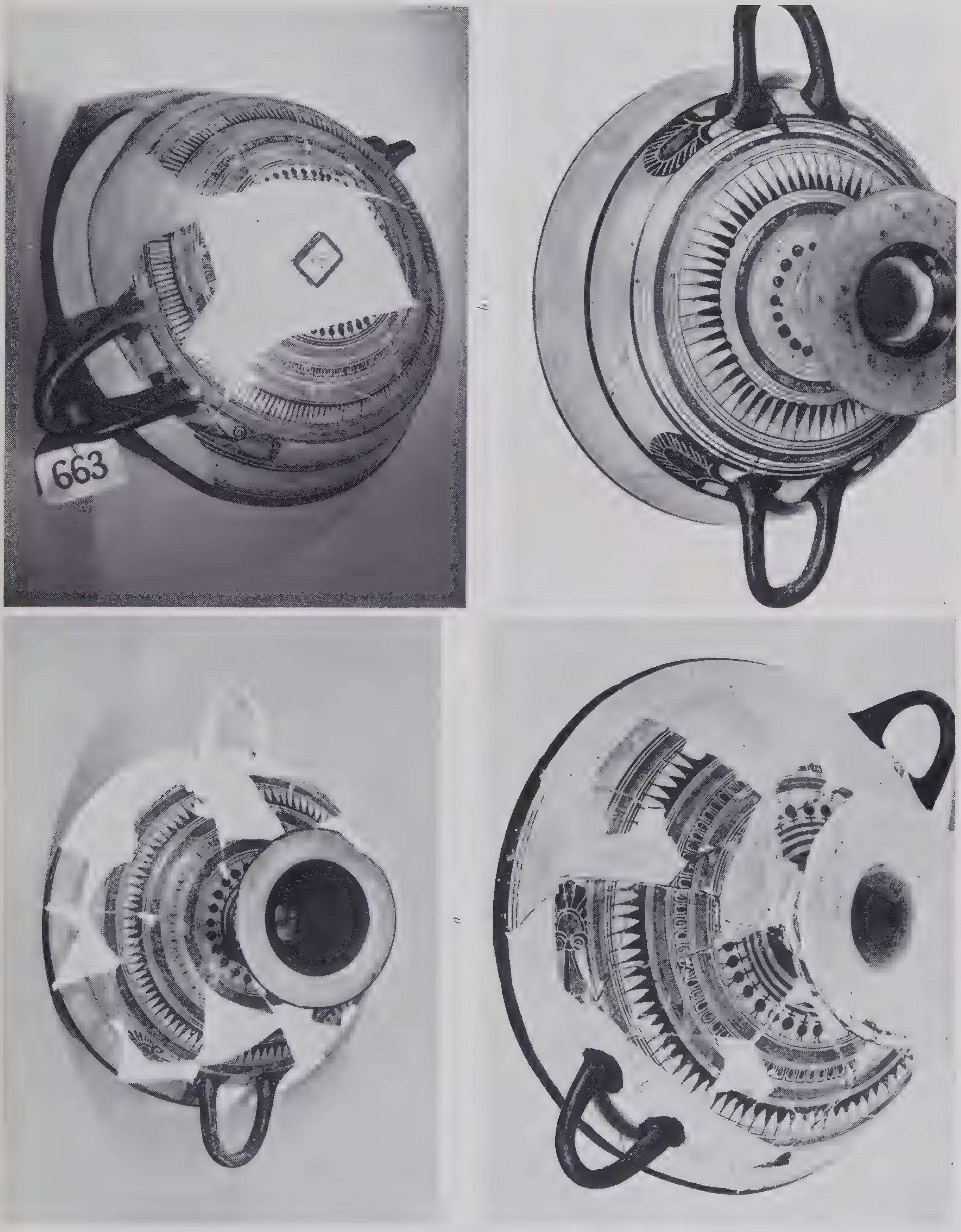
(*a*)



(*b*)

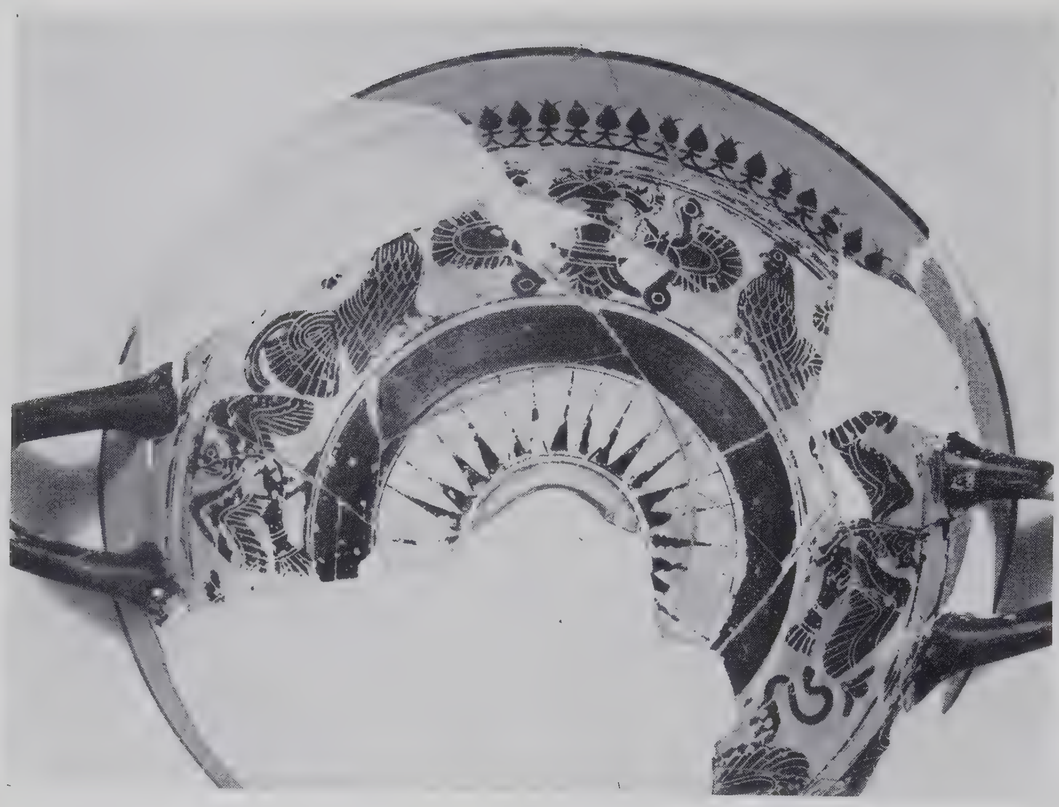
THREE LACONIAN VASE-PAINTERS.

(*a*) and (*b*) New York 50.11.7. Arkesilas Painter No. 4.

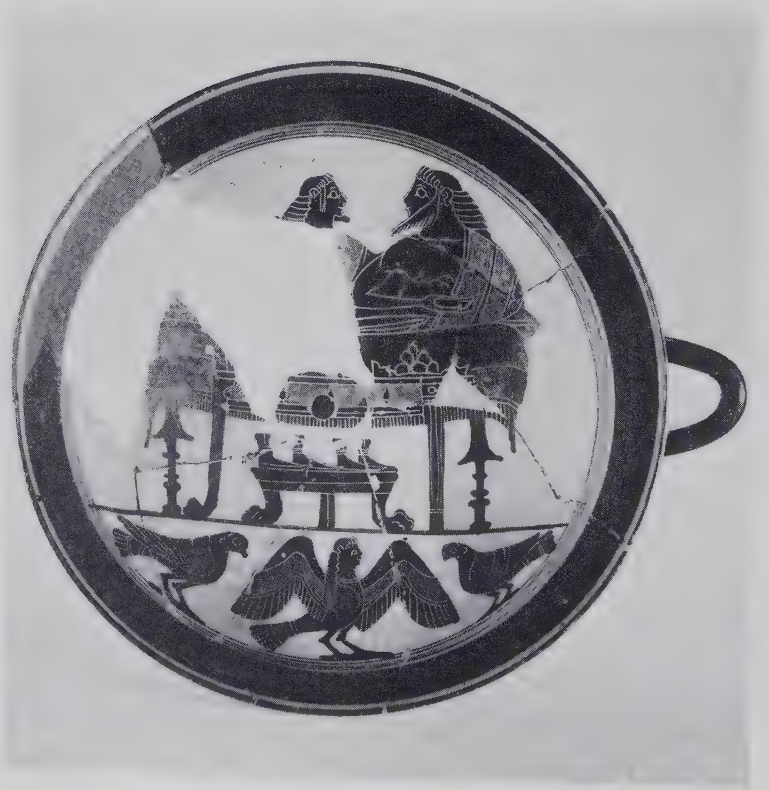


THREE LACONIAN VASE-PAINTERS.

(*a*) New York 50.11.7. Arkesilas Painter No. 4. (*b*) Louvre E 663. Arkesilas Painter No. 2. (*c*) Brit. Mus. B 5. Arkesilas Painter No. 7. (*d*) Brit. Mus. B 3. Manner of Arkesilas Painter No. 23.



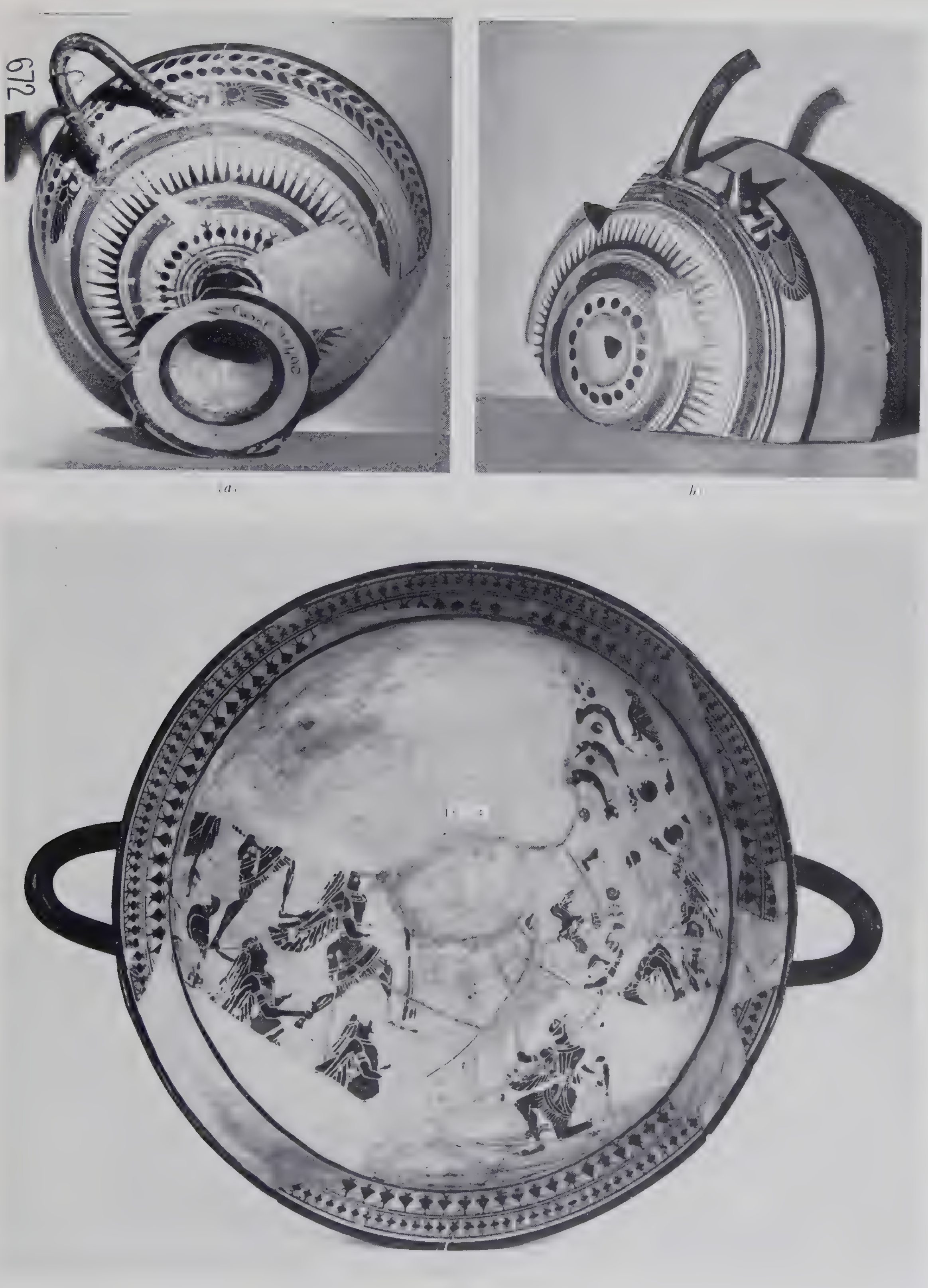
(a)



(b)

THREE LACONIAN VASE-PAINTERS.

(*a*) Brit. Mus. B 4. Naucratis Painter No. 3. (*b*) Louvre E 672. Naucratis Painter No. 6.



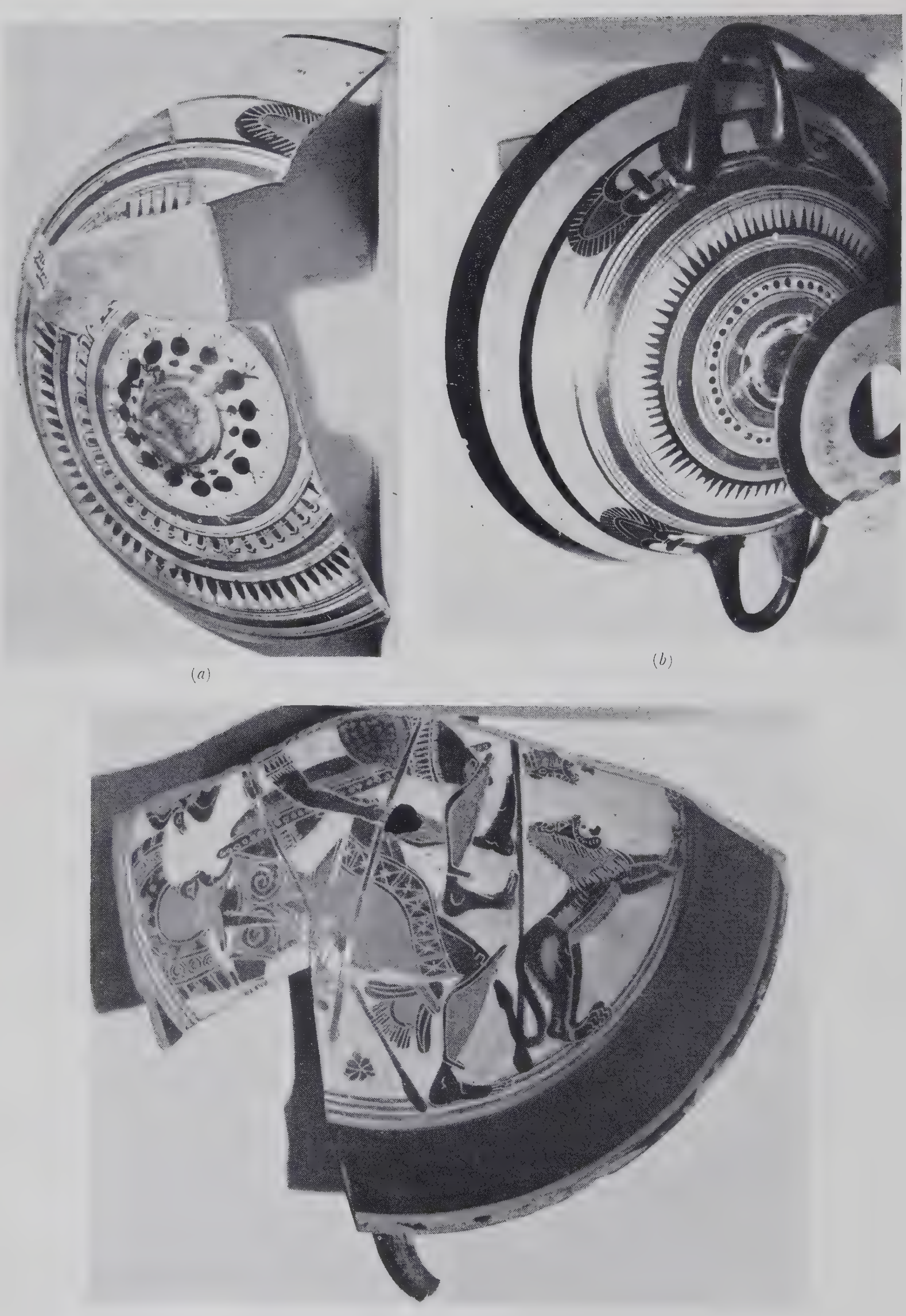
(a)

(b)

(c)

THREE LACONIAN VASE-PAINTERS.

(*a*) Louvre E 672. Naucratis Painter No. 6. (*b*) Louvre E 671. Hunt Painter No. 2. (*c*) Brit. Mus. B 4. Naucratis Painter No. 3.



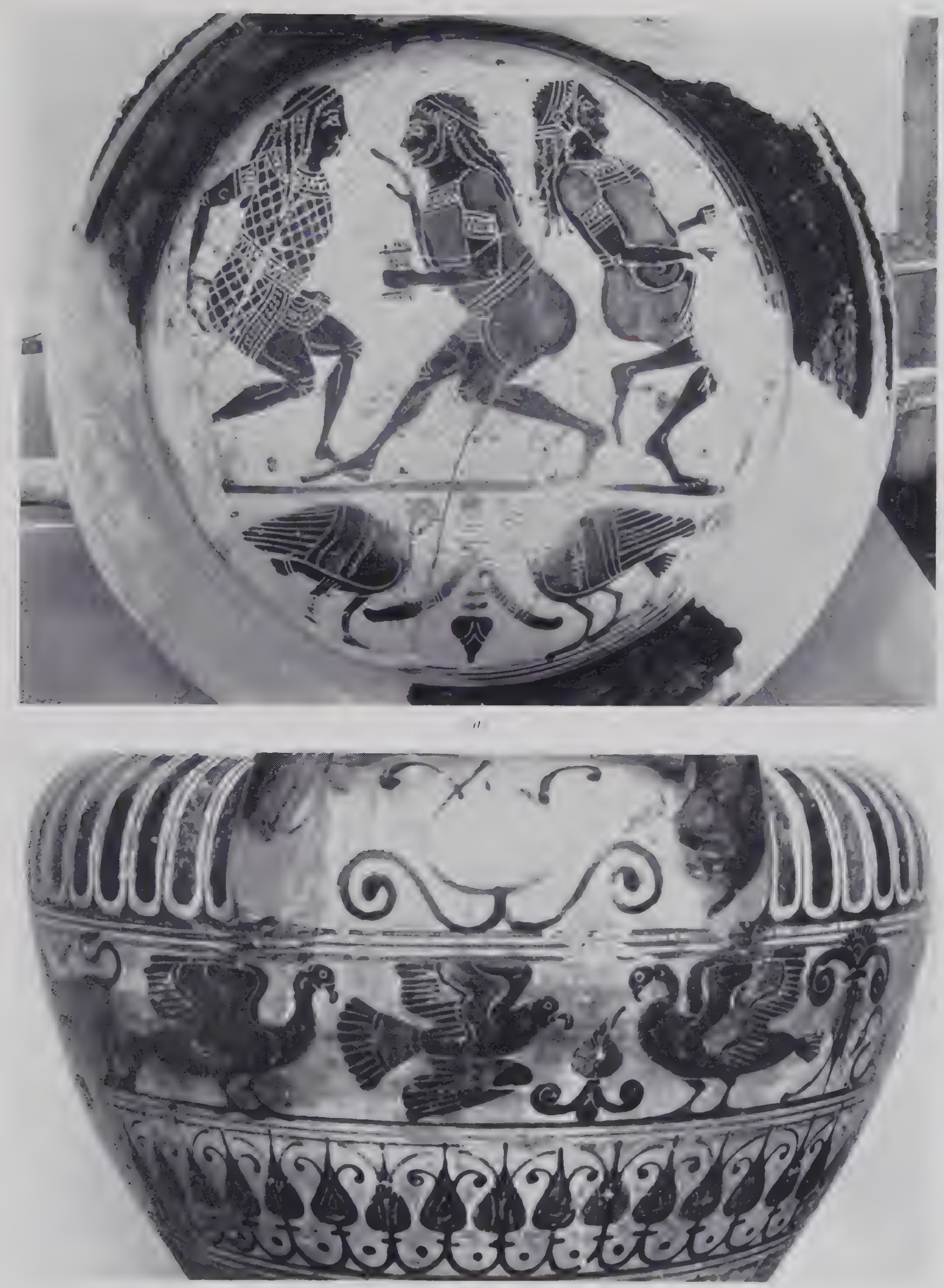
(*a*)

(*b*)

(*c*)

THREE LACONIAN VASE-PAINTERS.

(*a*) Louvre E 666. Manner of Arkesilas Painter No. 9. (*b*) Louvre E 670. Hunt Painter No. 4. (*c*) Louvre E 671. Hunt Painter No. 2.



THREE LACONIAN VASE-PAINTERS.

(*a*) Florence 3879. Hunt Painter No. 13. *b* Louvre E 661. Naucratis Painter No. 7.